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THE
hi-fi
SHOW Live
10-11th November
See p25

Equipment

65+ standout
separates tested

Vintage

Audio icons
of yesteryear

Music

The best Vinyl,
CDs & Downloads

Opinion

Our columnists'
hi-fi high points

- VINYL/PHONO STAGES Brinkmann to Technics
- TRANSISTOR & TUBE AMPS Audio Research to YBA
- CD/SACD/NETWORK PLAYERS ATC to T+A
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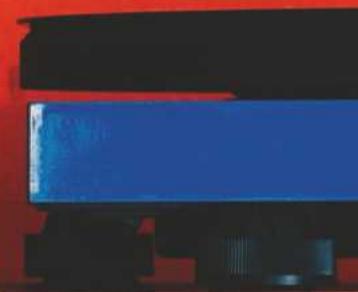
e.One

by bel canto

"....trust your ears, this is one of the most confident-sounding, myriad-cartridge-accommodating phono amps for the money."

- Ken Kessler

Bel Canto e.One PHONO Review
Hi-Fi News June 2018



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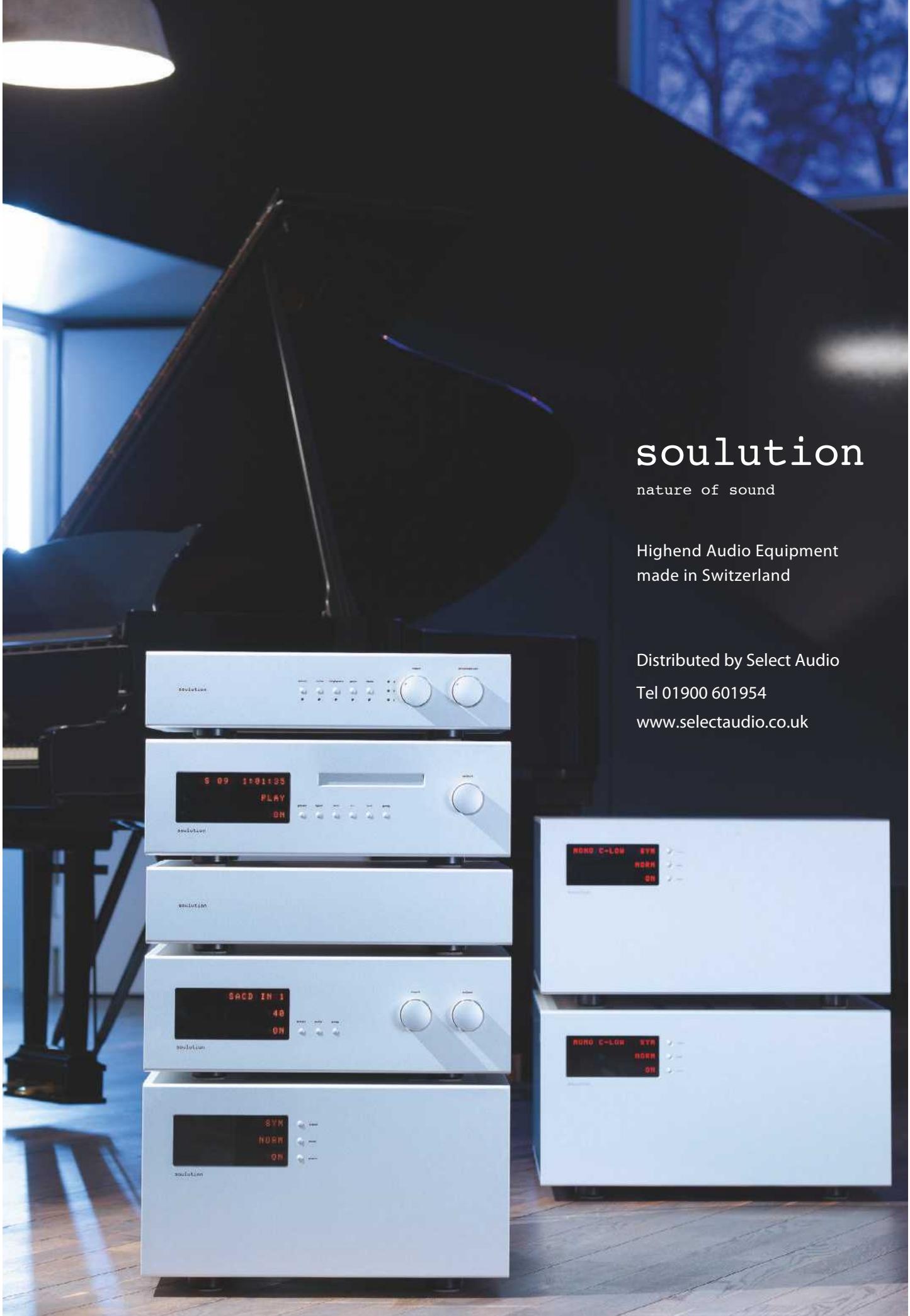
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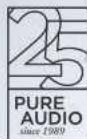


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HI-FI NEWS, SEPTEMBER 2018



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"Nagra's HD PREAMP places it in the uppermost echelon of the high-end. The characteristically Swiss construction is peerless, the functionality comprehensive, the ergonomics faultless, but – above all – the sound is simply phenomenal."
- Ken Kessler

Nagra HD PREAMP Review
Hi-Fi News November 2018



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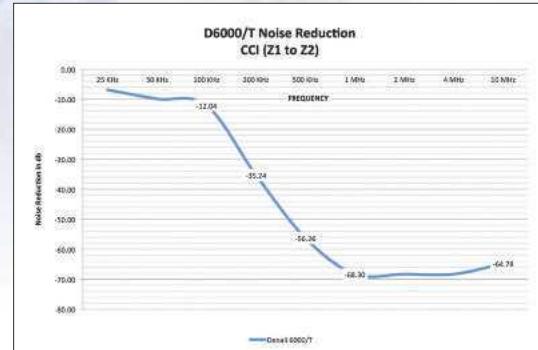
~ Dr. Daniel P. Melby, MD,
Medical Director: Minneapolis Heart Institute

" After installing the CIS units, the bipolar noise levels on the mapping catheters went from fairly high at .13-.15 to less than 0.01 mV after installing the first of the two CIS units. The noise level for the bipolar signals is now below the threshold of what the system can measure. Thank you!"

~ Dr. Kent Morris, Electrophysiology Lab Director: Norton Health, Louisville, Kentucky

The new science and filter technology developed by Shunyata Research scientist Caelin Gabriel has delivered never before seen improvements to the resolution of heart-signals and heart-imaging in the field of Electrophysiology. These results were so dramatic that Shunyata Research has created a medical branch of its company, named Clear Image Scientific® (CIS). The CIS power conditioners and power cords are now finding their way into heart surgery labs across the United States.

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~ Marc Mickelson, *Editor In Chief: The Audio Beat*

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~ Steven Plaskin: *Audiostream 2016 Product of the Year*

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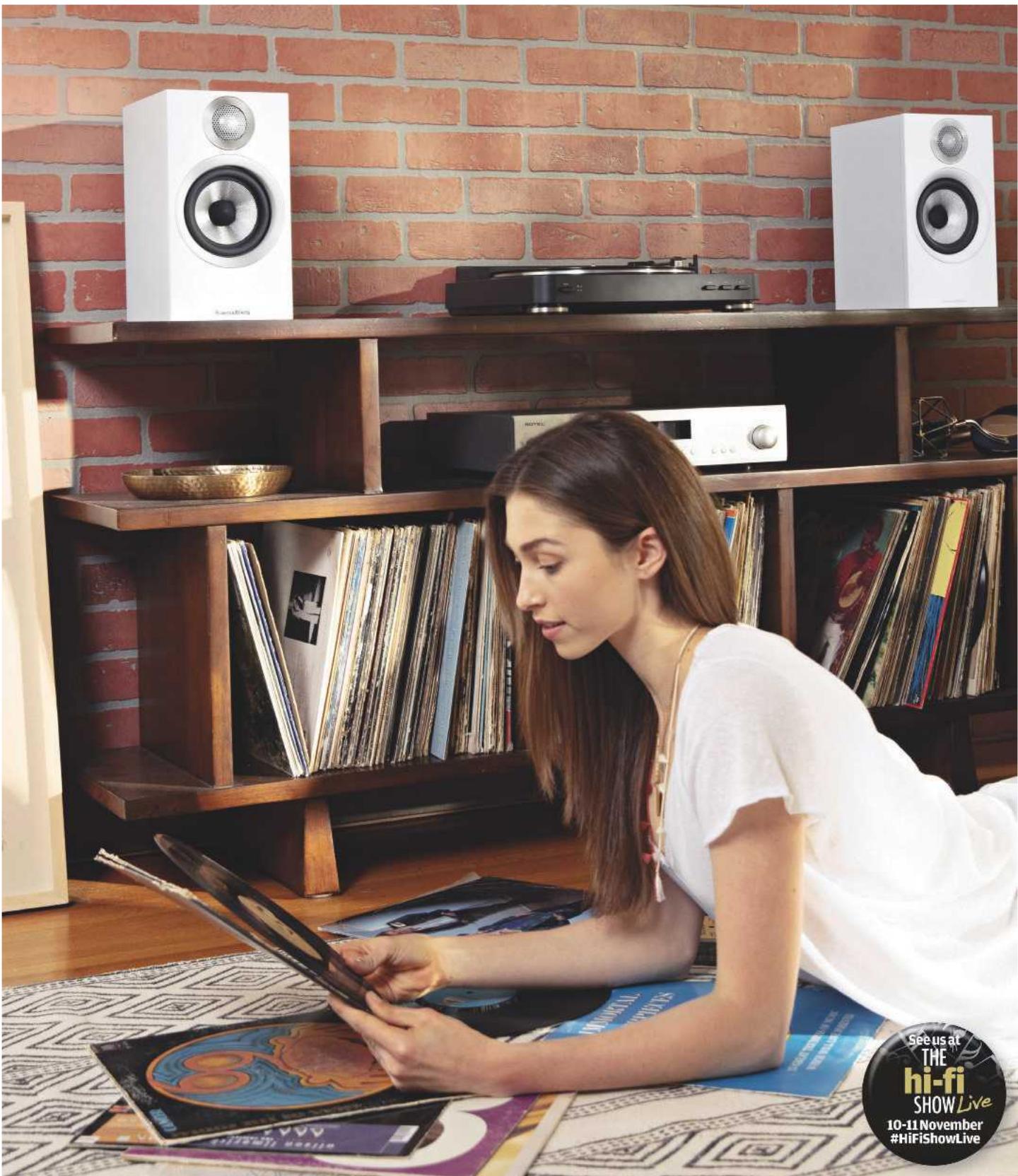
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YEARBOOK/18



ABOVE: Technics reimagines the direct-drive deck with its SL-10 series, now headed by the 'Reference Class' SL-1000R flagship (p37)

RIGHT: With chunky KT150 tubes, and Triode/Ultralinear modes to taste, the Audio Research REF160M is a monoblock-buster! (p73)

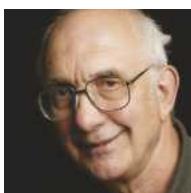


MUSIC: MoFi's limited edition One-Step pressing of Donald Fagen's *The Nightfly* is our choicest slab of vinyl (p146) while Smetana's symphonic poems make it to the top of our high-res downloads (p150)

RIGHT: Hi-Fi News & RR is the UK's representative of EISA's Hi-Fi Expert Group. Editor Paul Miller took over as EISA's President in June 2016



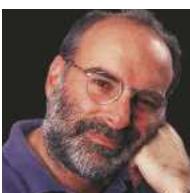
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BARRY FOX
Investigative journalist supreme, Barry is the first with news of the latest developments in hi-fi and music technologies



DAVID PRICE
An avid collector of audio treasures, and life-long hi-fi addict, DP lends his ears and experience from analogue to digital



KEN KESSLER
is a long-serving contributor, luxury goods writer and champion for the renaissance in valves and 'vintage' hi-fi'



KEITH HOWARD
has written about hi-fi for 30 years, and edited *Hi-Fi Answers* for nine. KH performs our speaker and headphone lab tests



STEVE HARRIS
Former Editor of this very title from 1986 through to 2005. A lifetime in audio and a love of jazz makes Steve a goldmine



ANDREW EVERARD
has reviewed hi-fi for over 30 years and is still effortlessly enthusiastic about new technology, kit and discovering new music

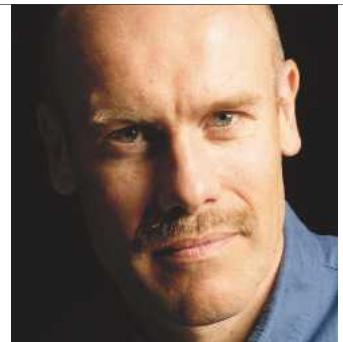


STEVE SUTHERLAND
worked on *Melody Maker* and then edited *NME* from 1992-2000, the Britpop years. Steve brings a unique slant to our Vinyl Release pages

Christmas has come a little early this year as *Hi-Fi News & Record Review* celebrates the hardware that turned our heads and the music that stirred our souls throughout 2018. So I bid you welcome, audiophiles, enthusiasts and music lovers all to our annual Yearbook.

Prepare to feast yourself on the very best that hi-fi has to offer as our bumper 180-page issue delivers a menu of the most delectable source components, amplifiers and loudspeakers from across the globe. We've also selected from our Budget Esoterica series, proving there's some very affordable hardware ready and eager to tempt your musical tastebuds. And for port and cigars – some vintage audio heroes to remind us of hi-fi's pedigree.

While the range of audiophile products seemingly evolves and grows year after year, with more networked-enabled digital music solutions than ever before, 2018 also saw the launch of some truly spectacular amplifiers – a few genuinely 'digital' in operation alongside more traditional transistor and tube-based integrated and power amps. We also tested a few *headphone* preamps that were lusty enough to drive a pair of super-sensitive (horn) loudspeakers, should the fancy take you!



Meanwhile, although mass market music consumption is increasingly derived from streaming sources, or enjoyed 'on the hoof' with headphones and portable players (including mobile phones), there's still a fertile crossover with our audiophile universe as turntables and the heavyweight LP continue to flourish.

'Join us on Nov 10-11th to experience high-end sounds for yourself'

With more years of experience under its belt than any other title, *Hi-Fi News* is uniquely placed to navigate you through the best music technologies. So why not join us on 10-11th November at our high-end Hi-Fi Show in Windsor where many of these fabulous Yearbook products can be experienced for 'real'. Advance tickets are still available via Eventbrite until Fri 9th Nov. See www.hifinews.co.uk/show for more details.

PAUL MILLER GROUP EDITOR

UK – Hi-Fi Show Live!

HI-FI NEWS SHOWBLOG

One of the advantages of being the oldest hi-fi magazine in the world is that over the years *Hi-Fi News* has had time to station its journalists in audiophile hot-spots across the globe from where they're able to bring you coverage of the biggest shows. Every issue we offer our Showblog from a major international event somewhere in the world, from Germany's vast High End Show in Munich through to the annual exhibitions in Tokyo, Hong Kong, Portugal and Stockholm – not to mention our very own Hi-Fi Show Live event in Windsor. Here's our pick of the world-class demonstrations that impressed us in 2018!



Whirlwind guitarist Joncan Kavlakoglu performs a duet with one of his own recordings through an awesome system including an Aurender W20 music server, a DAC, preamp and (four!) power amps from Nagra's HD series plus the four-tower Sonja XV Junior loudspeakers from YG Acoustics. With a supporting cast including SME, Boulder, Bel Canto and Weiss, this huge suite was a high-end treasure trove. Spectacular! www.padood.com



Mandy Clark of Pioneer & Onkyo Europe demo'd the brand's flagship Esoteric range, including the Tidal/DSD-ready N-05 network player, K-01X SACD player, C-02X/S-02 pre/power amps, held aloft on Atacama's EVOQUE-SE Bamboo Custom rack, and with power, interconnect and speaker cables from Nordost. www.esoteric.jp; www.atacama-audio.co.uk; www.nordost.com



Vivid Audio's Giya G3 loudspeakers looked spectre-like in Sound Design's blacked-out room but also sounded hauntingly transparent driven by Mola-Mola's Makua preamp and Kaluga pre/power [HFN Aug '17]. SSD also debuted the GPS Audio range of turntables. www.mola-mola.nl; www.vividaudio.co.uk



High-end hi-fi would never have got off the ground in the late '70s without the vision of doyen distributor Ricardo Franassovici, seen here standing alongside Absolute Sounds' staples including the TechDAS Air Force 2 turntable [HFN May '15] with SAT tonearm, Kalista DreamPlayCD/DAC [HFN Nov '17] and innovative Constellation Pictor preamplifier. www.absolutesounds.com

D'Agostino's Bill McKiegan is smiling because he wasn't asked to lift these two mighty Progression Monoblocks [HFN Jun '17] onto the laminated Artesania platforms. Heard with Wilson Audio's Alexia Series 2 floorstanders [HFN Mar '18], and with a dCS Vivaldi One [p43] as the flagship front-end, the sound was mesmerising. www.dagostinoinc.com; www.wilsonaudio.com



Japan – Tokyo Audio Show



Esoteric's president, Hiroshi Oshima, shows off the E-02 Balanced Phonostage Preamplifier, reminding us that the company cares deeply about analogue. The three inputs include one balanced pair for MC and two single-ended for MM/MC. It also offers a variable impedance function and cartridge demagnetising. www.esoteric.jp



Tokyo saw the long-awaited, entry-level McIntosh MA252 integrated amplifier. This model breaks from McIntosh tradition – it's a hybrid design with tube-based preamp and direct-coupled transistor output stage (so no autoformer here). www.mcintoshlabs.com



Accuphase always launches a host of treats, this year's including the AC-6 MC cartridge (inset) and the E-650 integrated amplifier with space for two optional boards, the AD-50 MM/MC phono and the DAC-50 with USB, Toslink and coaxial inputs. The neatest thing about the E-650? It's said to be 30W/ch in Class A mode. www.accuphase.co.jp



This handsome mini is the two-way, bass-reflex, Celsus Sound SP-ONE loudspeaker. Measuring 193x130x180mm (hwd) it's offered as both the passive SP-ONE/P or as the active Bluetooth SP-ONE/A with an internal amp said to deliver 30W. Sensitivity is given as 88dB/1W, the tweeter is soft dome and the 3.5in woofer uses a cone of woven carbon fibre. www.nuprime.jp/celsus-sound/



Luxman is one of the major Japanese high-end brands to take an entire room, and always has a number of new models to launch. This is the L-509X integrated amp [see p64], said to be good for 120W/ch into 8ohm. Big meters, MM and MC inputs, tone controls (!) and full remote control. www.luxman.co.jp

This staggering system was dazzling visitors in Tim de Paravicini's room, where he set up two pairs of Falcon Acoustics BBC LS3/5As, stacked in the manner of Advents of yore. The sound was magnificent, expanding on all of the LS3/5A's virtues: open, natural, with a realistic sense of space and plenty of detail and bass. These are priced at £2500 per pair. The open-reel deck is Tim's Denon DH-610S. www.falconacoustics.co.uk



Germany – High End



T+A's 40th Anniversary is being celebrated with the M 40 HV mono power amplifier, a glorious tower standing 360x560x470mm (whd) and weighing 54kg. Said by the company to deliver up to a kilowatt, the M 40 HV is a hybrid design employing 6SN7 triodes and a FET/bipolar output stage configurable for 'High Current' (Class A) or 'High Power' operating modes. www.ta-hifi.com



Nagra's HD PREAMP [HFN Nov '18] is a two-box affair with a separate housing for the PSU, giving a combined weight of 30kg! It employs two selected NOS E88CC valves, inputs are balanced and single-ended, and it also features two synchronised/motorised volume controls that govern a transformer-based output. www.nagraaudio-hd.com



EAT is going green: owner and designer Jozefina Lichtenegger decided it was time the Forte turntable and the new 'Jo No 5' MC cartridge matched the mint green of her favourite Pucci outfit. The Jo No 5 sports a nude fine line stylus while the body and stylus guard are made of polyamide. Also shown were a Forte with leather trim and a new turntable with plinth made of concrete. www.europeanaudioteam.com

PMC's Fenestria packed 'em in, not least because of the expanded display module that showed how the design is said to rid the enclosure of unwanted vibration. Standing 1.7m tall, the Fenestria (named as something to do with a window on the sound?) is a three-way loudspeaker with a quartet of 165mm long-throw 'piston' bass drivers per side. www.pmc-speakers.com



Chord's big news was the Choral Etude. It features a completely new topology for the company's amplifiers, using high-power proprietary MOSFETs arranged in two banks of four and boasting wide bandwidth, low noise and low distortion. Rated at 150W/ch into 4ohm or 300W bridged, the £3900 power amp has balanced XLR and single-ended inputs. www.chordelectronics.co.uk

Driving Sonus faber Liliums [HFN Jun '15], with a Reference 6 preamp [HFN May '16], Reference Phono 3 and CD6 CD player [HFN May '14], was Audio Research's latest model, the Reference 160M monoblock [see p73]. The 160M is rated at 140W in Ultralinear mode or 75W in Triode mode (switchable on the front panel) all from two pairs of KT150 tubes, driven by two 6H30s triodes. www.audioresearch.com



Portugal – The Audio Show

Dennis Bonotto from Nordost demonstrated how the company's virtual earth technology could be put into practice through the use of its QKORE grounding devices. The system used included the Sonus faber Amati Tradition loudspeakers [HFN Oct '17], Audio Research GSPre/GS150 pre/power amp [HFN Jan '15] and the Audio Research REF CD9 CD player [HFN May '13]. www.nordost.com



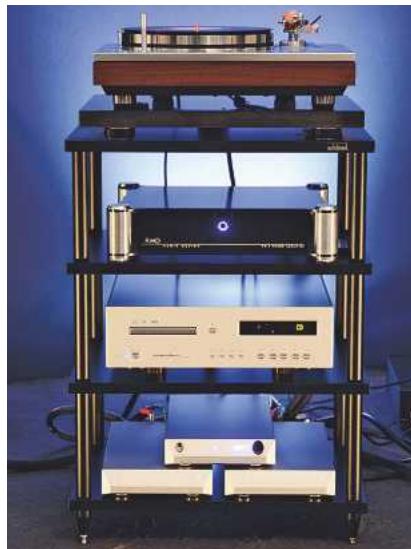
MBL's omnidirectional 101 E MkII loudspeakers impressed everyone with their musicality and dynamic scale as they radiated sound around the room. Electronics were from the company's Noble Line and comprised the M51 integrated amp, N21 power amp and the N31 CD/SACD player. The Innuos ZENmini Mk.II Std was used as the music server. www.mbl.de



Another scoop for the show was iFi Audio unveiling its xDSD DAC/headphone amplifier [see p57]. Despite its diminutive size it handles 768kHz PCM and DSD512 files and supports MQA technology. Some minor aesthetic details may well differ on the final product since this was a prototype unit shown for the first time publicly in Lisbon. www.ifi-audio.com



The imposing dual-cabinet Kodo loudspeakers from Gryphon delivered their scintillating sounds inside a room measuring no less than 150m². Accompanying electronics included a CH Precision P1 phono preamp, Gryphon's Mephisto power amp and Pandora preamp while a Döhmann Helix Two turntable and Antipodes CORE streamer were used as the sources. www.gryphon-audio.dk



Those seeking more affordable electronics and speakers were not to be disappointed. Playing beautifully with ELAC's (Andrew Jones designed) Adante AS-61 speakers [see p96] was this truly musical combination of kit in the form of a Luxman PD-171A turntable, PH-1 phono preamp from Portuguese maker RMD, Luxman D-06u CD/SACD player and NuPrime's DAC10 and ST-10M amplifiers. www.luxman.com; www.elac.com



Here's Martin Cobb, International Sales Developer at Chord, demonstrating the differences between three of the company's cable ranges: the Epic, Signature and Sarum T. The system he used included a pair of P1 loudspeakers from German brand Manger, which were driven by a Perreaux 250i integrated amplifier [HFN Aug '12]. www.chord.co.uk

Stockholm – High-End

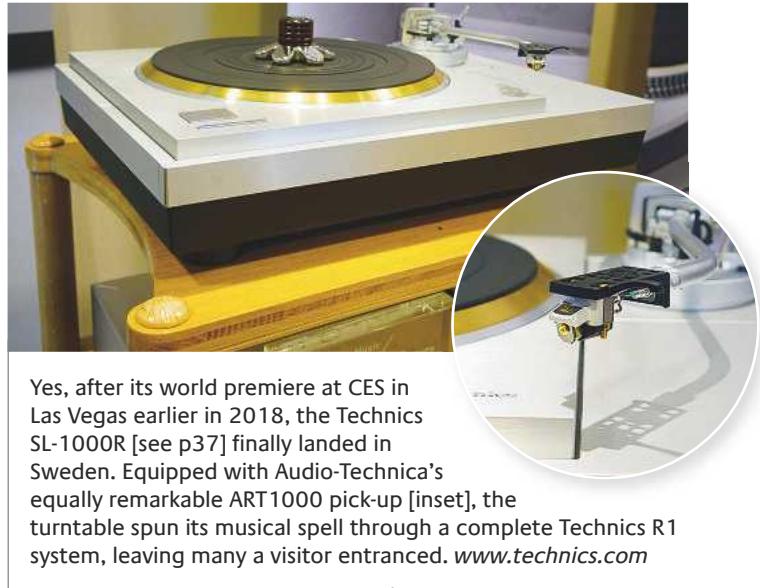
Oido Audio last made an appearance at the show some years ago but returned to launch an open-baffle loudspeaker called Deep Space 1. Designed and developed by Gunnar Hildén and Ninja Smajic, each enclosure is made of steel, stands 950mm tall and houses a conical tweeter, dipole-action coaxial midrange and four 10in bass drivers. Source was a Thorens TD124 turntable with EMT arm. www.oidoaudio.com



Reloop is a company with its roots firmly in the DJ community, offering a range of rugged hi-spec decks and accessories. But it also has a number of turntables aimed at the hi-fi purist, including the TURN2 in white with Ortofon OM10 cartridge and black TURN3, which comes with an Ortofon 2M Red. www.reloop-hifi.com



Visitors to the stand manned by Sweden's *Hifi & Musik* magazine were invited to test headphones from six different brands, including models from Focal-JMLab and Blue. There were also prizes up for grabs courtesy of Supra, AKG and JBL. Launched in 1970, *Hifi & Musik* is a fellow member of EISA.



Yes, after its world premiere at CES in Las Vegas earlier in 2018, the Technics SL-1000R [see p37] finally landed in Sweden. Equipped with Audio-Technica's equally remarkable ART1000 pick-up [inset], the turntable spun its musical spell through a complete Technics R1 system, leaving many a visitor entranced. www.technics.com

VoxaTiv from Germany showed its T-211 valve amplifier with chassis milled from a one-piece aluminium block weighing 63kg. While the amp is handmade in Germany its transformers are designed by Japanese artisan Masaaki Oshima. Beneath the T-211 on a separate rack is an EAR Acute Classic CD player. www.voxativ.com



Line Magnetic was out in force with its LM-812 loudspeaker system, based on the Altec Lansing Iconic speaker often used as a playback monitor in its day. The speaker itself comprises three drivers – the M808, LM802 and BA-18 – its eight-cell coaxial horn aiding positioning of the speakers in the listening room. www.line-magnetic.eu

EVENTS Latest from the UK's only high-end hi-fi show

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Chasing The Dragon

Join Mike Valentine, the world's leading producer of Direct Cut Vinyl albums, in the Symmetry suite and discover the secrets behind Eleanor McEvoy's new album *Forgotten Dreams*.



Ken Kessler

'Off The Leash' [p178] meets The Hi-Fi Show Live as our very own Ken Kessler, master of controversy, joins us to spin some choice LPs and share his opinions about hi-fi, music and open-reel tape. Not to be missed!



Meet the Editor

Paul Miller, editorial director of our UK titles and AVTech Media Americas, the President of EISA and organiser of The Hi-Fi Show Live discusses the future of high-end audio and music.

Music Masterclass

The extraordinary cellist, Vincent Bélanger, will be playing live to audiences in the Audio Note room and illustrating just how much influence the *bow* – vintage and modern – has on the final sound of the instrument.



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Photo-electric pick-up cartridge
Made by: Digital Stream Corporation, Kanagawa, Japan
Supplied by: Soundfoundations Ltd, Berks
Telephone: 0118 9814238
Web: www.ds-audio-w.biz; www.soundfoundations.co.uk
Price (inc. equaliser): £19,995

DS Audio Master 1

Optical pick-ups were a dream in the 1960s and '70s, but they were hamstrung by the technology of the era. Weight, heat, power source – all mitigated against their success. DS Audio, however, has the benefit of returning to the concept in the age of the LED, while its parent company is a global giant making optical sensors. Your £20k for the DS Audio Master 1 package, then, gets you both cutting-edge design and manufacture.

The Master 1 comes with its power supply-cum-phono stage, the cartridge not delivering a signal suitable for a conventional MM or MC phono input. All DS Audio cartridges are fully compatible with any of the company's accompanying phono stages/equalisers, so you can mix and match them.

The DS-W1 [HFN Nov '15] is the oldest model still available, while the least costly, the DS-002 [HFN

'The upper reaches were always silky and sibilance-free'

Jun '17], is born of the subject of this review, the flagship Master 1. Hence the 'timeline' is DS-W1/Master 1/DS-002.

The Master 1 equaliser box offers three stages of subsonic filtering and both single-ended and balanced outputs for each. We swiftly found out that balanced was better in every case – more robust and controlled – but the preferred filtering had to be determined by ear on a speaker-to-speaker basis.

The Master 1 and DS-002 both track best at 1.7g and weigh 8.1g. Construction, however, is where they part ways. The Master 1 uses 'Super Duralumin' for its body, has a sapphire cantilever and a 'micro-ridge' stylus. As for set-up, the bad news is that its body is so shallow that we feared we might have to use a shim between it and the SME 30/12's Series V-12's headshell,

since this arm tapers, and the fat end near the pivot can foul an LP's lip or the cueing lift if it's set too low.

Nor is the Master 1 the greatest tracker we've used, regardless of the care you apply in setting overhang and VTA, so certain albums such as the 45rpm cut of Miles Davis's *Kind Of Blue* [Mobile Fidelity] might excite it enough to generate a wee bit of chatter.

This, however, was a rare occurrence. In every other way, its conduct was impeccable, not least because of its primary area of superiority over MM/MC designs.

🎵 UNCANNY SILENCES

What listeners, when first hearing DS cartridges, find most disorienting is this absolute absence of grunge, hum or other background annoyances. 'Uncanny' is a word that springs to mind... On all the tracks we listened to, the Master 1 was as silent as a CD.

Noiseless behaviour by now accepted, we focused on the music, especially female vocals – Judee Sill's eponymous debut on 45rpm LP [Intervention] and *Dusty In Memphis*, also on 45rpm [Analogue Productions] – which enjoyed a naturalness enriched by the breathiness the Master 1 revealed. This was more prominent with Dusty over Judee, but both LPs also acquired an openness and lack of artifice due only in part to the cleanliness of the sonic arena. Dusty's song 'Son Of A Preacher Man' has its own funky/spooky feel, but the benefits bestowed upon it by the cartridge went beyond the realism in the vocals.

For this release and the rest, the DS Audio Master 1 spread the soundstage beyond the speakers with efficacy to match a London (Decca) Gold. It lacks a bit of that cartridge's sparkle, which may or



ABOVE: A 'Super Duralumin' alloy body and top plate with threaded lugs ensures the Master 1 can be bolted tight into a headshell. Its shallow profile may necessitate a shim to prevent the back of some arms fouling on their cueing lift

may not be an artificial trait, and this was easy to detect on Simon and Garfunkel's 'Mrs Robinson' [*The Complete Columbia Albums Collection*; Columbia/Legacy].

The upper reaches, though, were consistently silky and sibilance-free.

The Simon & Garfunkel titles showcased the Master 1's sheer coherence, allowing the harmonies to blend, while remaining separate enough for you to focus on one or the other. Acoustic guitars oozed with woody resonance, while the piano in 'Bridge Over Troubled Water' grew in stature and majesty.

VERDICT

The DS Audio Master 1 can shock when its presentation is so clean and noiseless. It requires the listener to dispel any preconceptions about vinyl. And with the speed, detail and space to rival a Decca Gold this pick-up is just phenomenal. ☺

HI-FI NEWS SPECIFICATIONS

Generator type/weight	Photo-optical / 8.1g
Recommended tracking force	1.6-1.8mN (1.7mN)
Sensitivity/balance (re. 5cm/sec)	1550mV / 0.50dB (from Eq unit)
Compliance (vertical/lateral)	15cu / 20cu
Vertical tracking angle	25 degrees
L/R Tracking ability	75µm / 70µm
L/R Distortion (-8dB, 20Hz-20kHz)	0.4-15% / 0.5-5.6%
L/R Frequency resp. (20Hz-20kHz)	+2.5 to -9.5dB / +8.1 to -0.5dB
Stereo separation (1kHz / 20kHz)	30dB / 6dB

AUDIO FILE

Low/medium output moving-coil pick-up cartridge
Made by: Lyra Co. Ltd, Tokyo, Japan
Supplied by: Symmetry, Herts
Telephone: 01727 865488
Web: www.lyraaudio.com; www.symmetry-systems.co.uk
Price: £6495



Lyra Etna SL

Lyra products inhabit a niche within a niche: they are all hand-built, low-volume pick-ups that, for nearly a generation now, have sold largely to devotees of the brand. The company's house sound – if you can call it that – is a tantalising blend of delicacy, subtlety and finesse, with detail and drive aplenty.

Here we sample the £6495 Etna SL (Single Layer), second only to the flagship Atlas. Described as a low impedance, low output moving-coil, it sports an open body, unconventionally shaped coils, asymmetric suspension, exotic cantilever materials and a special Japanese-sourced diamond stylus.

Its medium 9.2g bodyweight and remarkably low 1.72g recommended downforce suggest that it is compatible with most contemporary tonearms.

The Etna SL is assembled onto a solid titanium core, with non-parallel surfaces to inhibit

channel separation, Lyra's X-core coils are also configured for slightly higher output with less wire in the coils, and improving tracking performance.

The Etna SL uses Lyra's 'New Angle' system of mechanically pre-biasing these coils so that they accurately align with the front and rear magnets when the stylus is sitting square in the groove at the recommended tracking force. This system also equalises vertical and horizontal compliances, allowing the coils to move equally easily in all directions. This, says Lyra, all makes for better dynamics and tracking.

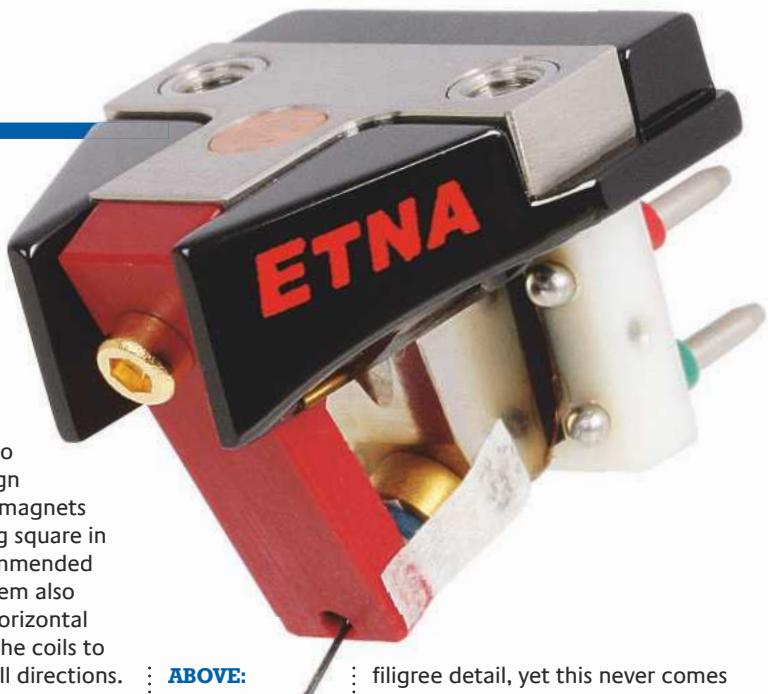
RIDE OF YOUR LIFE
Once you've installed this skeletal moving-coil into your favoured tonearm, the fun can begin. Just a few minutes from cold, it's

obvious that the Etna SL is an exceptional pick-up cartridge – more than just 'great', it is quite remarkable and one of the finest we have heard, with a heady combination of forensic accuracy allied to a wonderful

joie de vivre. It is not a cold and soulless excavator of detail yet it does this brilliantly!

Tonally, it is pure 'Lyra' – this means it's highly neutral. There's no sense of any added bass warmth, and at the other end things are as pure as the driven snow. Hi-hats, for example, sound absolutely as they should, and are delivered with the certainty that you usually only get from high speed open-reel tape.

Between the frequency extremes, the Etna SL serves up a wide-open window on the world. Haircut 100's 'Kingsize' [Pelican West; Arista] is a delicious slice of funk and really well recorded too. The Etna SL in effect 'absents itself' from the proceedings – it's as if it just lets you and the music get on with it. It has a wonderfully delicate and detailed sound, bristling with



ABOVE:

The Lyra Etna SL
cantilever is a diamond-coated boron rod, with a variable-radius 3x70µm line-contact stylus slot-mounted into it. While demanding caution in use, it makes precise cueing very easy

filigree detail, yet this never comes over as forced or artificial. We were simply beguiled by the beautifully etched guitar sound, the eerie smoothness of Nick Heyward's vocals and the cartridge's complete composure even on dynamic peaks.

Drums sounded supple and vibrant, the bursts of brass had a wonderful rawness and rasp, yet guitars were just as warm as the recording engineer intended. This track was a great test of the Etna's mettle: one where it just sounded delighted to have been given the chance to get into the groove.

VERDICT

One of the finest pick-up cartridges we have ever heard, the Lyra Etna SL brings breathtaking delicacy and insight to vinyl LPs. It's absolutely unflappable. On audition, most people lucky enough to afford this moving-coil will adore it. Ⓜ

HI-FI NEWS SPECIFICATIONS

Generator type/weight	Moving-coil / 9.2g
Recommended tracking force	1.68-1.78mN (1.75mN)
Sensitivity/balance (re. 5cm/sec)	285µV / 0.55dB
Compliance (vertical/lateral)	30cu / 35cu
Vertical tracking angle	26 degrees
L/R Tracking ability	>80µm / >80µm
L/R Distortion (-8dB, 20Hz-20kHz)	0.65-9.9% / 0.55-9.5%
L/R Frequency resp. (20Hz-20kHz)	-1.0 to +3.1dB / -1.1 to +5.2dB
Stereo separation (1kHz / 20kHz)	38dB / 28dB



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AUDIO FILE

Belt-driven turntable with electronic speed control
Made by: Brinkmann Audio GmbH, Achberg, Germany
Supplied by: Symmetry, Herts
Telephone: 01727 865488
Web: www.brinkmann-audio.com; www.symmetry-systems.co.uk
Prices: £9795 (deck), £2995 (tube PSU), £3895 (10.5 tonearm)



Brinkmann Spyder

This high-end turntable package needed to be special given the surfeit of fancy disc-spinners on the market, and so it proved. Its modular construction means you can add up to four tonearms – up to 12in in length – in bolt-on ‘pods’. Our deck came configured for the £3895 Brinkmann 10.5 tonearm.

A novel electronically heated bearing means that it is largely immune to changes in ambient temperature while the supplied ‘Sinus’ motor is designed to

‘It’s fun to kick off the audition period with a poor recording’

reduce cogging, powering what is effectively a 500g flywheel, giving a smooth feed to the platter. We also used the optional £2995 RöNT II vacuum tube power supply, making a cool £16,685 in total.

The large 10kg alloy/crystal platter is driven around its edge by a thin rubber belt from the offboard motor. It sports the usual two speeds, with speed-trim pots sitting either side of motor control buttons. The arm pods bolt to the main chassis and contain detachable arm mounting plates, which – if they’re specified for Brinkmann tonearms – come pre-wired to simply plug straight into the base of the arm.

The Brinkmann 10.5 went on very smoothly – it’s a beautifully

finished design with a claimed dynamic mass of 12g, so will work well with most modern cartridges (as our original lab test confirmed).

The tube is made from aluminium and stainless steel, with a so-called ‘high tech synthetic material’ also used, while the allen-key locked headshell has an anodised finish. Double gimbals with precision ball-bearings are employed in the bearing and there are adjustments for VTF, VTA and headshell azimuth. Magnetic antiskating is fitted too and there’s a beautifully silky feel when you hand-cue your LP tracks.

In use, this turntable feels lovely. It oozes quality and gives no impression that engineering corners have been cut. There are no creaks or groans from the belt as the deck spins up to the correct speed, during which time the motor remains absolutely silent.

STRONG AND STABLE
It’s always fun to kick off the auditioning period with a particularly poor recording, and so it was that a well-campaigned pressing of 10cc’s *How Dare You!* [Mercury] was deployed – scratches, crackles and all. ‘I’m Mandy, Fly Me’ proved an unexpected treat via a Lyra Dorian MC, delivering a powerful sound that had something of a master-tape feel to it.

There was a surprising amount of dynamic scale to the presentation that was notably less compressed than with other decks. When the



music gets loud, the Spyder happily conveys this, while its stability brings great focus to the sound, allowing it to excavate masses of low-level detail. Things snap into place and one feels as if a fog has lifted from the recording. The effect is clear everywhere, from its deep, extended bass to the treble, which is finely etched, spacious and crisp.

In the midband you find yourself fixating on the beauty of vocal harmonies, for example, or the purity of aggressively struck steel guitar strings. Cue up a track like Kate Bush’s ‘Baboushka’ [Never For Ever; EMI] and you’re greeted with an impressively deft rendition of those opening arpeggios with their stinging attack transients – which lesser turntables invariably slur.

Another enjoyable aspect of the deck’s character is its particularly fine soundstaging. With Steely Dan’s ‘Rikki Don’t Lose That Number’ [Greatest Hits; ABC Records] a good but pretty unremarkable recording suddenly assumed a scale and stature we rarely hear, pushing far left and right, with excellent depth perspective too.

The Brinkmann Spyder’s superb soundstaging certainly made Handel’s *Messiah* [Dunedin Consort & Players; Linn Records] a delight, and while it’s perfectly possible to have technically adept turntables that still end up making the music sound rather uninteresting, the Spyder is not one of them.

VERDICT

This redoubtable device conveys rhythms with ease, offers great clarity, a smooth tonal balance and expansive soundstaging. Factor in the excellent finish, flexible design and overall engineering, and this turntable is fine value. ☺

HI-FI NEWS SPECIFICATIONS

Turtable speed error at 33.33rpm	33.28rpm (-0.16%)
Time to audible stabilisation	7 seconds
Peak Wow/Flutter	0.02% / 0.03%
Rumble (silent groove, DIN B wtd)	-68.3dB
Rumble (through bearing, DIN B wtd)	-71.5dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-59.9dB
Power Consumption (with Rönt II)	75W (65W idle)
Dimensions (WHD) / Weight	500x160x400mm / 21kg



Two-speed manual belt-drive turntable
Made by: ELAC Electroacoustic GmbH, Germany
Supplied by: Hi-Fi Network
Telephone: 01285 643088
Web: www.elac.com; www.hifi-network.com
Price (turntable/arm/cartridge): £995

AUDIO
FILE



ELAC Miracord 70

This deck marks 70 years after ELAC's very first turntable – the PW1 autochanger – rolled off the production line. Like the 90 [HFN Jul '17] the £1000 Miracord 70 comes as a complete package including arm and MM cartridge, which is an Audio-Technica AT-95E. Set-up is merely a matter of fitting the belt and platter, balancing the arm, optimising the tracking weight and bias. Then you're good to go.

The Miracord 70 is built around a solid MDF base having a stylish high-gloss black finish with metallic trim. Driven by a high-quality synchronous Premotec AC motor, the sub-platter rotates on a ceramic ball and has a hardened steel bearing shaft, spinning between two sintered bronze radial bearings.

'The deck powered out the bass without breaking a sweat'

Four rubber plugs on the sub-platter support the 2.6kg main platter – a solid piece of glass, coated on its underside with a black ceramic paint and topped with a felt mat.

The on/off switch is tucked discreetly under the front of the plinth but speed change from 33.3 to 45rpm has to be effected by physically moving the belt, which is a minor disappointment.

The Miracord 70's retro-looking in-house designed tonearm is J-shaped and is based around a mix

of aluminium and steel materials, said to optimise its resonant behaviour. Multiple electrical grounding points help combat unwanted noise and hum.

We also tried the tonearm with Goldring's 2500 moving-magnet [HFN Mar '11] and Audio-Technica's AT-F5 moving-coil designs and it performed very well indeed with each. The deck also comes with a good-quality detachable interconnect lead, which was used throughout our review. There's no lid supplied with the Miracord 70, but it has both mounting points and screws fitted at the rear of the plinth ready to accept one.

RHYTHM KING

Our first test track was Mark Ronson's 'Bang Bang Bang' from *Record Collection* [RCA] which showed that the deck locks onto rhythms like a terrier. We were also struck by the Miracord 70's bass performance. Jazanova's 'Takes You Back...' from *In Between* [JCR] has low bass notes that are capable of shifting furniture but the Miracord 70 powered them out without breaking a sweat.

The deck has a very clean, detailed and extended low end, but is also tight and focused with no overhang, wallow or bloat. As a result, it could appear to sound a little 'thin' at times, but when a proper bass note comes along, it's clear that it's neither missing nor adding anything. For a £1000 all-in package, it offers an incredibly accomplished performance.

ABOVE: ELAC's plug-and-play vinyl solution comes with an alloy tonearm, AT-95E MM pickup and even a set of branded phono cables. At the back of the plinth gold-plated RCAs and a lockable earthing post allow arm-cable experimentation

Across the midband, the Miracord 70 was both fluid and detailed, our choice of smoother-sounding Goldring 2500 working wonders here without impacting on either atmosphere or detail. Michael Hedges' guitar work on *Aerial Boundaries* [Windham Hill Records] was expansive and located beautifully centre stage, each pluck of the strings perfectly outlined.

Another attribute is the fine sense of precision achieved in the soundstage, the Miracord 70 setting up a very solid and well-defined image between the loudspeakers that extended nicely into the back of the room. So the performers enjoyed plenty of space, which ensured they could be located easily in the mix, however busy it became.

The turntable's £1000 price tag is competitive one, but in this tough area of the market the deck is still up against stalwarts from many well-established names. Michell Engineering's 'entry-level' TecnoDec [HFN Nov '03] comes in at around this price point, fitted with an OEM Rega tonearm, while Rega itself has a big-hitter in the form of the Planar 6 with Neo power supply.

Then there's Pro-Ject, which offers its 2 Xperience SB, RPM 5 Carbon and The Classic models, all of which come with cartridges. They're worthy adversaries, but the sheer poise of the Miracord 70 makes it an alluring prospect.

VERDICT

This is a well-engineered and beautifully made turntable, and the inclusion of a good-quality cartridge is a big plus. What's more, the deck is capable of revealing the benefits of a cartridge upgrade. As plug-and-play combinations go, this is one of the best we've encountered. ☺

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.29rpm (-0.15%)
Time to audible stabilisation	3sec
Peak Wow/Flutter	0.03% / 0.07%
Rumble (silent groove, DIN B wtd)	-66.0dB
Rumble (through bearing, DIN B wtd)	-67.1dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-56.9dB
Power Consumption	5W (2W standby)
Dimensions (WHD) / Weight	465x140x365mm / 11kg

AUDIO FILE

Belt-driven turntable with electronic speed control
Made by: Pro-Ject Audio Systems, Austria
Supplied by: Henley Audio Ltd, UK
Telephone: 01235 511166
Web: www.project-audio.com; www.henleyaudio.co.uk
Price: £6500 (inc. arm and cartridge)



Pro-Ject 175 VPO

A special commemorative product, this is a plush limited edition version of Pro-Ject's The Classic turntable [HFN Aug '16], produced to celebrate one-and-three-quarter centuries of the Vienna Philharmonic Orchestra. Its lacquered wooden plinth is said to correspond to that of a violin, while the gilded metal top-plate signifies the brass instruments of the orchestra. The tonearm's finger lift comes from a clarinet flap, and the speed changer from a flute button!

The deck costs £6500 including tonearm and cartridge. Only 175 pieces are being made for which Pro-Ject offers two plinth colour options, Dark Cello or Bright Violin, while a rear plaque carries the serial number and the name of the owner.

The wooden plinth with damped adjustable feet has the top plate

'It's not some quaint blast from the past, like a golden oldie'

resting on six Thermo Plastic Elastomer balls rather than springs. The top plate, which also holds the bearing and arm mount, is effectively 'double-decoupled' from whatever the turntable sits on. The plate itself is a sandwich of MDF and 3mm polished brass protected by a high gloss transparent paint. The platter is the same as The Classic's, but the subplatter is made

of aluminium instead of plastic, the bearing having been beefed up to accommodate this heavier platter.

The large and shiny, silky-smooth tonearm does have a high effective mass, precluding its use with high compliance moving-magnet pick-ups. Made from hand-polished aluminium, it sports rugged cardan bearings and includes an Amati brass headshell with a white brass fingerlift – that clarinet flap!

A bespoke cartridge uses various components from the Ortofon Cadenza line. Pro-Ject says its unique alloy body achieves a very smooth performance 'which represents the famously soft sound of the Vienna Philharmonic Orchestra strings'.

WIDE AND DEEP

We were surprised by the obvious stability, clarity and sense of confidence with this set-up – it's not some quaint blast from the past that sounds like a golden oldie. It proved to be an incisive, balanced and enjoyable music-making companion confining the nostalgia trip to its appearance.

One of our favourite modern jazz tracks is 'Bronstein' by Fractals [Fractals; Surface Records] from 1986, and this was beautifully captured by the standards of its day. The 175 Vienna communicated this fact in no uncertain terms, serving up a large recorded acoustic that went wide and deep. Inside this, there was a surprising degree of detail, and good focus too.

There was great space to the sound, with some wonderfully etched acoustic guitar work located smartly in the centre. At the same time, the distinctive fretless bass guitar was powerfully carried, strongly underpinning the track.

Cannonball Adderly's 'Autumn Leaves' [Somethin' Else; Blue Note] is a seminal slice of early '60s musicianship, and here the 175 Vienna also proved to be in its element. Despite its mass, the tonearm tracked securely with its matching special-edition cartridge – indeed, rather flattering the latter.

Adderly's alto sax was delightfully raspy and tactile while Miles Davis' trumpet was a treat too – lustrous and sparkling, yet 'earthy' and organic. It gave the feel of a live instrument being played. Cymbal playing was another highlight – sparkling and glistening like real ringing, metallic objects in the listening room.

We ran the gamut of our record collection, including the classic rock of Fleetwood Mac's 'Don't Stop' [Rumours; Warner Bros] which was delivered in a fast yet expansive sounding manner, the turntable capturing the nuances of this classic recording without a care in the world. Kraftwerk's 'Techno Pop' [Electric Café; Kling Klang], a textbook example of '80s electronica, sounded taut and tight with fine detail rendition.

VERDICT

Pro-Ject's distinctive 175 Vienna has a crisp, detailed and engaging nature – and it's even-handed regardless of the music you play. Yes, there's a slight question mark about the high mass of the tonearm, but the package breezily exceeds the sum of its parts. ☺

HI-FI NEWS SPECIFICATIONS

Turtable speed error at 33.33rpm	33.28rpm (-0.16%)
Time to audible stabilisation	5sec
Peak Wow/Flutter	0.02% / 0.03%
Rumble (silent groove, DIN B wtd)	-68.4dB
Rumble (through bearing, DIN B wtd)	-73.0dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-62.2dB
Power Consumption	2.3W
Dimensions (WHD) / Weight	462x131x351mm / 13kg



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Pictured with the P9 Signature headphones from Bowers & Wilkins, an exclusive partner of Rotel.

AUDIO FILE

Belt-driven turntable, arm & MM cartridge
Made by: Rega Research Ltd, Essex
Supplied by: Rega Research Ltd
Telephone: 01702 333071
Web: www.rega.co.uk
Price (including arm and cartridge): £375



Rega Planar 2

In 1977, Rega launched its original Planar 2 – a slick British vinyl spinner that many thought was the most affordable, serious hi-fi turntable around. And now, the new £375 Planar 2 reviewed here is essentially the company's top 'entry level' product. It comes pre-fitted with a moving-magnet pick-up so is beginner-friendly, yet a serious attempt has been made to get the package sounding good too.

The Planar 2's compact acrylic plinth is now a laminated design available in gloss black, white and red finishes. Its feet have been redesigned for greater stability and lower vibration transfer – though all

original, iconic RB300 of 1983. The 9in armtube is still made from aluminium, with a non-detachable headshell and that familiar Rega fingerlift, but it features new ultra-low friction bearings, a stiffer bearing housing and an 'automatic' bias adjustment. As before, there's an elegant locking armrest.

The pre-fitted cartridge is an Audio-Technica derived Rega Carbon. This is a medium output design featuring a spherical stylus and carbon cantilever.

Set-up is simple: you just screw the arm counterweight on until the cartridge floats, rotate it another full turn and it's set at an optimal 2g downforce. The fiddly bit – aligning and tightening the cartridge to the tonearm – is already done for you, the VTA is correct and the bias preset. Plug in the power supply and the phono leads to the amp or phono stage, find the power switch underneath the plinth, and you're all set and ready to play.

A FINE ALL-ROUNDER

The new Planar 2 is a precise and tidy performer combining a good smattering of detail with an innate smoothness and balance. It has an air of control and confidence, with none of the 'nasties' that plague many cheap vinyl spinners, like speed instability or noise.

The result is that the Planar 2 sounds a lot more expensive than it really is. Supertramp's 'Take The Long Way Home' [Breakfast In America; A&M Records] can sound rather bright, yet this turntable turned in a polished performance,

'Both the harmonica and the first piano cadence glistened'

Regas benefit from proper siting on a light and rigid wall shelf or proper equipment stand.

The deck's 10mm-thick platter is made from Optiwhite float glass and spun by Rega's new electronically controlled 24V AC synchronous motor. You change the speed from 33.3 to 45rpm by moving the belt on the pulley (which means you have to remove the platter). Meanwhile, the main bearing is a new 11mm self-sealing brass affair, said to offer low friction and tight manufacturing tolerances.

A pleasure to operate, its new RB220 tonearm is a direct descendent of what is arguably Rega's greatest ever product – the

offering a clean sound with a tight bass, an open and spacious midband and smooth, extended treble. The opening harmonica solo glistened with harmonics, as did the first piano cadence. Roger Hodgson's lead vocals were delivered unsullied and intact and one could really hear the emotional expression in his singing, as well as the distinctive grain of his voice.

Spinning up Suzanne Vega's 'Cracking' [Suzanne Vega; A&M Records] showed how good it was at imparting the music's natural rhythmic flow. The song's slow pace and sparse arrangement can sometimes make it seem rather meandering, but the Planar 2 got right into the groove. Its crisp, immediate nature meant it was able to convey the subtle rhythmic inflections in Vega's phrasing as clearly as the dynamic contrasts.

The treble is sweet and civilised, even with the budget Rega Carbon cartridge – although of course this can be upgraded for better sound at a later date. And we found ourselves engrossed in the pleasing spread of sound that the little Rega served up.

Playing Herbie Hancock's 'I Have A Dream' [The Prisoner; Blue Note] the deck delivered a pleasingly wide soundstage, with instruments accurately located. The Carbon MM was well able to give the sense of a group of superb musicians playing together brilliantly within a wide recorded acoustic setting.

VERDICT

Rega's latest Planar 2 feels much less built-down-to-a-price than its rivals. It is more solid, better finished and smarter looking, while the sound is far more enjoyable than you have any right to expect for just £375. Ⓛ

HI-FI NEWS SPECIFICATIONS

Turtable speed error at 33.33rpm	33.63rpm (+0.89%)
Time to audible stabilisation	4sec
Peak Wow/Flutter	0.02% / 0.03%
Rumble (silent groove, DIN B wtd)	-68.1dB
Rumble (through bearing, DIN B wtd)	-69.4dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-63.8dB
Power Consumption	3-4W
Dimensions (WHD) / Weight	447x117x360mm / 5.5kg



Belt-driven turntable with electronic speed control/Curved tube tonearm
Made by: Soulines, Belgrade, Serbia/Timestep, Devon, UK
Supplied by: Timestep Distribution, Devon
Telephone: 01803 833 366
Web: www.soulines.com; www.timestep-distribution.co.uk
Prices: £2995 (deck), £1450 (tonearm, inc mount & cable)

AUDIO FILE



Soulines Kubrick DCX/Timestep T-609

Designer Igor Gligorov says he drew inspiration for the look of the Kubrick from the spinning, double-wheeled Space Station V depicted in the film director's movie *2001: A Space Odyssey* and the name naturally followed. Starting as a recycler of old turntables into new, Gligorov created Soulines in 2009.

The £2995 Kubrick DCX boasts a highly rigid aluminium plinth and

'It has an energy and exuberance that many will find addictive'

sub-plinth built from differently shaped blocks. These are coupled together, strategically damped and mounted on three adjustable feet.

The 40mm-thick 3.2kg acrylic platter runs on an inverted main bearing machined from solid brass with belt-drive supplied by a DC motor. Both 33.3 and 45rpm speeds are offered, adjustable using trimpots atop the motor cover.

A combined cork/rubber mat is supplied, as is the company's 'Protractor' LP for cartridge alignment. This features Baerwald, Stevenson and Loefgren options, so you can experiment to your

heart's content. The armboard is replaceable and pre-drilled, with SME, Rega or Jelco/Linn types able to be supplied to order.

Our review sample was equipped with Timestep's new and highly distinctive looking £1350 T-609 tonearm, with titanium armtube, which is intended for use with higher-mass cartridges, such as Ortofon SPUs and Denon's DL-103. It features ABEC7 bearings in a stainless steel bearing block, and frictionless magnetic anti-skating is set by a delightful micrometer control.

The arm mount is separate, costs an additional £50, and is also available in Linn/Jelco or SME fitments. Timestep also supplied one of its tonearm cables for the review, which retails at £50, plus the excellent £59 Audio-Technica AT-LH13 headshell.

TRUMP CARD

It soon became apparent that the deck and arm gel very well and that Timestep has played a trump card in putting the two together. The combination sounded delightfully expressive, at the same time revealing a fine sense of purity in whatever was played. Leading edges of notes arrived at just the right moment while the tail ends

ABOVE: Simple, but elegant, the Kubrick's modular construction confers a high degree of flexibility. Note the continuous curve of the Timestep tonearm's titanium tube

faded away with a well-judged sense of atmosphere. The pairing had an energy and exuberance that many will find addictive.

We were struck too by the bass performance, which was big, beefy and solid. The kick drum strikes on the intro to Steve Earle's 'Copperhead Road' [MCA Records] hit home with an impact and snappiness that was very impressive. It was not all bang and slam, though – the bass guitar notes on the title track of Donald Fagen's *Morph The Cat* [Reprise Records] were as detailed and well-rounded as we've heard on any turntable at this level.

At the top end, the Kubrick DCX and T-609 offered a delicious sense of clarity and openness that pulled performers expertly into the room. This character extended down into the midband as well. The effect here was to ensure instruments were securely located within the soundstage while sounding exactly as they should.

'The Awakening Of A Woman (Burnout)' from The Cinematic Orchestra's *Man With A Movie Camera* LP [Ninja Tune] was a perfect case in point, with the stringed instruments brought expertly to the fore. The percussion took its rightful place in leading the track, with the subtle cymbal effects crisp yet never overbearing.

VERDICT

Not only are the Kubrick DCX and Timestep T-609 compelling products in their own right but they also work very well in combination. The sculptural turntable is well engineered and sounds very fine, while Timestep's new titanium tonearm sounds especially sweet when mated with low compliance moving-coil cartridges. ☺

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.29rpm (-0.13%)
Time to audible stabilisation	6 seconds
Peak Wow/Flutter	0.06% / 0.05%
Rumble (silent groove, DIN B wtd)	-71.6dB
Rumble (through bearing, DIN B wtd)	-68.4dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-58.5dB
Power Consumption	2W (1W idle)
Dimensions (WHD) / Weight	470x160x350mm / 14kg

AUDIO FILE

Direct-drive turntable with electronic speed control
Made by: Panasonic Corporation, Osaka, Japan
Supplied by: Panasonic UK, Berks
Telephone: 0844 844 3899
Web: www.technics.com; <http://panasonic.net>
Price: £20,000 (including tonearm and plinth)



Technics SL-1000R

Panasonic – the Technics brand's parent company – is not in the business of offering nostalgia. Instead, the reappearance of the SP-10 family is all about the here and now.

Two years on from the launch of the superb SL-1200GAE [HFN Jun '16], the brand is back with a flagship broadcast-standard turntable worthy of the name – a clean sheet design. The SP-10R is the motor unit, and when supplied in its bespoke plinth with Technics' new tonearm, the package becomes the 'Reference Class' SL-1000R – at a cool £20,000.

At its heart is the new coreless direct-drive motor, developed for the SL-1200G series and further improved here. It delivers massive torque (there are five selectable

Technics says that the new motor unit's chassis is more rigid than in earlier versions, and offers a lower centre of gravity, while the plinth in which it sits is a two-layer design with a 30mm aluminium top panel and BMC base.

The hand-assembled tonearm is a universal S-shape type with 254mm (10in) effective length. This sports a beautifully finished lightweight magnesium tube, with gimbal suspension and precision bearings, and oxygen-free copper wiring is fitted internally. Oddly, no arm cable or headshell is supplied – Technics leaving these choices to the enthusiast owner.

OPEN SESAME

Any great turntable gives you a certain frisson when you first hear it.

Auditioned with a Lyra Etna SL MC [HFN May '18], the SL-1000R did exactly this, giving a wide-open window on the recording to let listeners hear precisely what's going on. It's one of the most invisible and least

intrusive sounding decks out there, underpinned by an almost supernatural speed stability from which everything else follows on.

A dog-eared old copy of Rush's *Archives* [Mercury] showed this to great effect. 'Fly By Night' is a short slice of early '70s rock, with lashings of electric guitars, drum rolls and fills between the crashing cymbals and it was if the SL-1000R had beamed back in time to when the recording was young and fresh.

'Music bubbled out of the groove, simply bristling with detail'

settings) – and Technics claims a mere 0.015% wow and flutter.

The 7.9kg platter is a laminate of diecast aluminium, a 10mm-thick brass sheet and a rubber under-damping material, while 12 tungsten cylinders are precision-fitted into its periphery.

The control unit, which has a switchmode power supply, offers an OLED digital display of the speed (33.33, 45 and 78rpm), and this can be set to two decimal places, ±16%.

The songs bubbled out of the groove, giving a wonderfully zesty presentation that bristled with detail. There was a translucence here that we'd not previously heard, realised in the vast, wide open spaces between each beat of the music. Everything was so secure and so well proportioned that the sound might as well have been bolted deep into the earth's crust.

Kate Bush's *Hounds Of Love* [EMI] was also a dramatic transformation. We were mesmerised by the intricately sequenced sampled percussion, hearing it with a precision never quite discerned before. And when the vocal line came in we weren't prepared for the size and expanse of Bush's voice. Most turntables drop Kate's vocals further back in the mix, but the SL-1000R had them way forward, giving her an eerie, ghostly sound – unexpectedly intimate too.

The deck's handling of frequency extremes was also exceptional. So 4hero's 'Planetaria' [from *Earth Pioneers; Talkin'*], was dramatic to behold. A superb late '90s analogue recording, it has powerful double-bass played over metronomic snare drums and rim shots, which are intertwined with lush strings and soft backing synths.

The former sounded lightning-fast and highly expressive, while the timbre of the hi-hats shimmered like stars glinting out of the night sky. Between these two extremes, the strings possessed a richness and lustre that was frankly uncanny.

VERDICT

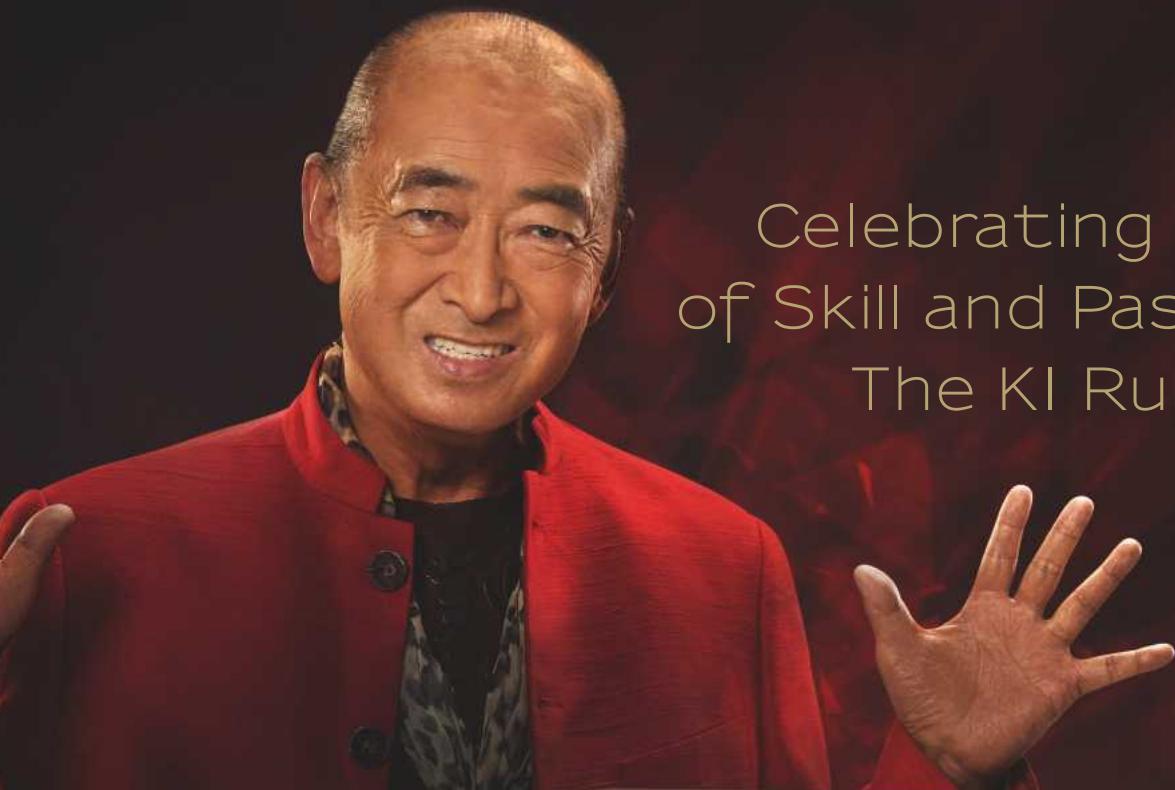
Technics' SL-1000R is a definitive statement of engineering prowess – arguably the apex of vinyl playback – and it marks the return of direct drive to the top tier of turntables. ☺

HI-FI NEWS SPECIFICATIONS

Turtable speed error at 33.33rpm	33.33rpm (-0.006%)
Time to audible stabilisation	<1sec
Peak Wow/Flutter	0.01% / 0.01%
Rumble (silent groove, DIN B wtd)	-74.9dB
Rumble (through bearing, DIN B wtd)	-74.1dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-59.9dB
Power Consumption	6W (<1W idle)
Dimensions (WHD) / Weight	531x188x399mm / 40.2kg

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because music matters

AUDIO FILE

MM/MC phono preamp with balanced outputs
Made by: Bel Canto Design Ltd, Minneapolis, USA
Supplied by: Padood Ltd, Cambridge, UK
Telephone: 01223 653199
Web: www.belcantodesign.com; www.padood.com
Price: £1250



Bel Canto e.One Phono

What Bel Canto says it offers with its e.One Phono is a way for perfectionists to enjoy a high degree of adjustability at a sane price. Part of a series of units in the same mid-sized enclosure, the £1250 e.One has two banks of DIP switches to adjust both gain and loading. These are accessible via the rear of the unit and thus not first requiring the removal of any lid.

Both channels have their own mirrored sets of DIPs as this is effectively a dual-mono design. The jam-packed back panel thus contains RCA phono sockets for L/R

'Incessant percussion drove the listener along to an almost martial beat'

inputs with a choice of balanced XLR or single-ended RCA outputs. Then, flanking the phono inputs, are one set each of DIPs containing two switches for gain, with the default suitable for high-output MCs and all MM cartridges, and another per side with four switches for loading.

Another bank of DIPs offers ten impedance settings: 31, 45, 50, 77, 83, 91, 100, 331, 495 and 980ohm. With all four in the 'up' position, the value is 47kohm. Bel Canto describes its circuit as having an 'optimised two-stage

architecture', with a low-noise 40dB input stage, a high-precision dual-mono RIAA network and a fully-regulated, multi-stage power supply. The custom output stage comprises discrete components and features an idealised PCB layout with due attention paid to earthing. Suffice it to say, the unit was quiet, with exceptional dynamics.

A REAL BLAST

What a beauty! Nothing can disguise the sheer musicality of this gem. And if 'fun' is an acceptable term to use in a context that some consider to be a life-or-death issue,

then the e.Phono is akin to a real blast.

The beauty of the e.One is that its possible gain/impedance combinations allow the user to find something

close to ideal for most real-world cartridges – though we couldn't set it up at 68kohm for our London Decca. And in a high-end context the Bel Canto e.One Phono certainly acted like it belonged.

We had to hand a fine copy of the 1960s *Living Presence Stereo* [Fontana SFL52], which includes Ray Davies & The Button-Down Brass, The Coffee Set and The Band Of The Scots Guards delivering sonic spectaculairs noted for their finesse. From track to track, all possessed that gorgeous sheen that has vinyl

collectors, audiophiles and hi-fi pensioners alike waxing glorious about specific labels from a half-century ago. The brass had the kind of punch that sends chills down the spine. This unit is seriously quick.

We saved our ultimate test for last – female vocals courtesy of Linda Ronstadt. The recent reissue from *Heart Like A Wheel* [Mobile Fidelity] came from the era when studios demonstrated a heavy hand, but this exhibits transparency that belies any studio tampering. We are not about to suggest that 1970s Left Coast rock is a patch on the best Capitol albums circa 1957, but this was magical.

Airy acoustic guitar on 'It Doesn't Matter Any More' distracted us from listening to her voice, so open was the sound. Ms Ronstadt's distinctive, rich delivery was palpably present, and just breathy enough. Detail was plentiful, the bottom end on 'When Will I Be Loved' substantial and full, with the incessant percussion driving the listener along to an almost martial beat.

For 99% of the time, this is a step-up of truly ghostly silences. Narrowed down to its best-case scenarios, we'd say this performs at its best with moving-magnets – with a Shure V15 V we found it fast, clean and even a touch sweet.

ABOVE: With the e.One Phono, the action is all around the back, with banks of DIP switches. The front consists solely of a heavy, sculpted metal frame around a black glass panel with green LED power-on indicator

VERDICT

If you trust your ears rather than worry over the settings, this is one of the most confident-sounding, myriad-cartridge-accommodating phono amps around. The build is excellent, balanced outputs allow you to follow an upgrade path not restricted to pick-ups and the sound is just what you want from vinyl in that it's truly involving. ☺

HI-FI NEWS SPECIFICATIONS

Input loading (MM/MC)	47kohm / 31-980ohm
Input sensitivity (re. 0dBV balanced out)	12.8mV/3.2mV/1.37mV/1.03mV
Input overload (re. 1% THD)	89mV / 23mV/11mV/8mV
Max. output (re. 1% THD) / Impedance	6.9V / 96ohm (balanced)
A-wtd S/N ratio (re. 0dBV balanced out)	93.0dB/ 76.2dB/76.4dB/76.7dB
Frequency resp. (20Hz-20kHz/100kHz)	-0.15dB to +0.45dB / +6.4dB
Distortion (20Hz-20kHz, re. 0dBV)	0.00014–0.0025%
Power consumption	4W
Dimensions (WHD) / Weight	216x75x318mm / 4.5kg



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EISA award citation

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AUDIO FILE

MM/MC phono preamp with balanced outputs
Made by: Parasound Products, Inc, California, USA
Supplied by: IOS Company (UK) Limited, Wilts
Telephone: 01249 708641
Web: www.parasound.com; www.ioscompany.co.uk
Price: £2299



Parasound Halo JC3 Jr

Phono stages are multiplying in numbers like Tribbles on *Star Trek's* USS Enterprise, so any new entry has to have a compelling *raison d'être*.

Parasound's £2299 Halo JC3 Jr qualifies on account of family ties, its big brother being the excellent JC3+ [HFN Oct '15], which gives the sort of performance that some rivals struggle to beat at twice the price. So as Parasound's most accessible phono stage it promises a generous taste of high-end vinyl sound at a saving of nearly £2000.

The Halo JC3 Jr treads a skilful line between convenience and flexibility, and without fiddly DIP switches offers a choice in overall gain of +40dB, +50dB or +60dB in unbalanced mode (+46dB, +56dB

resistors, high-speed/soft-recovery bridge rectifiers and common-mode inductors, all mounted on Carl Thompson-designed PCBs.

The same premium RelCaps are used in the RIAA network that designer John Curl employs in his famous Vendetta phono stage, while Parasound's Richard Schram says the Halo JC3 Jr uses: 'the best-sounding and quietest IC op-amp that John Curl recommends'. Both inputs and outputs are direct coupled, with DC servos used to prevent any offset voltage at the output, the company says.

FAMILY LIKENESS
This entry-level phono stage doesn't stray from the 'clean and open' formula of its pricier siblings – the

stereo soundstage is well proportioned and clearly defined, with a good sense of width and depth. Tonally things are smooth and balanced. With both MC and MM pick-ups the Halo JC3 Jr's innate transparency and low noise gave a most vibrant and natural feel to proceedings, with a deep bass and sparkling treble.

It carried Steve Hackett's 'Shadow Of The Hierophant' [Voyage Of The Acolyte; Charisma] with real elan, giving great insight into the grain of the vocalist and instruments, and an extremely tactile classical guitar sound.

And 4hero's 'Spirits In Transit' [4 Pages; Talkin' Loud] proved vast and enveloping, with those soaring strings, harp and deep double-bass apparently nailed to the boundary wall of our listening room. You could practically hear the drum

'The Halo JC3 Jr dug in deep, laser through thick layers of production'

and +66dB balanced) alongside another switch offering variable or fixed impedance loading. The fixed MM setting is a standard 47kohm.

Parasound's Halo JC3 Jr looks like a quality product. The alloy fascia is classy and its steel casework is really well finished in a choice of silver or black, and there's a rack-mount kit available too. The fascia hosts just two buttons, power and mono – the latter for pre-stereo recordings, of course. On standby the blue power LED is dimmed while switching the unit on brings it up to full brightness after a short start-up period.

Inside, things are neatly laid out, with a sprinkling of audiophile components including Vishay Dale

kit resonating off its booth in the recording studio.

Annie Lennox's 'Don't Let It Bring You Down' [Medusa; RCA] is a sublime cover of the '70s Neil Young masterpiece but, thanks to its rather dense and compressed '90s production, it can sound rather dirge-like. The Halo JC3 Jr dug in deep, laser through those thick layers of production and able to capture the leading edges of the electronic snare and cymbal sounds and fire them out at great pace. Its innate sense of control and grip kept things composed, and it had room to breathe during climaxes, remaining calm and collected.

The Halo JC3 Jr doesn't 'throw' rhythm at you either, rather it has a strong, controlled, lilting sense of musical progression where everything is kept exactly in its correct place. Yes, there are some tube rivals that present the music as dreamier and more romantic, but none cuts through to what's in the groove better at such a price level.

Of course, many phono stages excel in one or more areas but the Halo JC3 Jr does very well all across the board. Whether it's the pristine classic electropop of Kraftwerk's 'Techno Pop' [Electric Café; EMI Electrola] or the dramatic finale of Beethoven's Symphony No 5 [Philharmonia/Karajan; Toshiba/ Angel], you get a well-rounded, cohesive and informative picture.

VERDICT

Parasound's Halo JC3 Jr is neither overly euphoric nor too forensic, being enjoyably engaging at all times and largely agnostic about the vinyl you choose to spin. Factor in fine build and finish and it clearly scores well at the price. Ⓛ

HI-FI NEWS SPECIFICATIONS

Input loading (MM/MC)	47kohm / 50-5500ohm
Input sensitivity (re. 0dBV balanced out)	4.58mV / 1.46mV / 486µV
Input overload (re. 1% THD)	70mV / 23mV / 7.8mV
Max. output (re. 1% THD) / Impedance	15.6V / 96ohm (balanced)
A-wtd S/N ratio (re. 0dBV balanced out)	82.7dB / 90.1dB / 73.9dB
Frequency resp. (20Hz-20kHz/100kHz)	-0.1dB to +0.32dB / +0.18dB
Distortion (20Hz-20kHz, re. 0dBV)	0.0012–0.012%
Power consumption	8W
Dimensions (WHD) / Weight	437x64x375mm / 5.9kg



CD player/DAC/preamp
Made by: Loudspeaker Technology Ltd, UK
Supplied by: ATC, Gloucestershire
Telephone: 01285 760561
Web: www.atcloudspeakers.co.uk
Price: £2950

AUDIO FILE



ATC CDA2 Mk2

As the 'Mk2' suggests, this is a revised version of ATC's innovative CDA CD player/DAC/preamp combination, selling for £2950 and designed to partner its P2 power amplifier [HFN Mar '17], or active speakers.

With the P2 you have a simple two-box system with both CD playback and plenty of inputs – both analogue and digital – and able to drive a wide range of speakers. It will handle files up to DSD256, but it won't play SACDs, nor does it have any streaming capability onboard. However, you can play music via a computer connected to the USB-B input provided, or add a dedicated network music player.

'It lets the Pink Floyd guitar riffs scream out with fine attack'

The CDA2 Mk2 uses a new TEAC drive to spin the CDs and includes the celebrated AKM AK4490 DAC that can support up to 768kHz/32-bit PCM, the CDA2 Mk2 using this capability up to 384kHz. ATC has decided not to give the user direct access to all the filters, choosing what it thinks sounds best.

The DAC can also receive data from the CDA2 Mk2's range of digital inputs, including USB-B, coaxial and optical. Unusually, it will support DSD256 when used with Windows, but only DSD128 with Mac OS X machines.

The output of the DAC stage, and the three analogue inputs (one is of higher sensitivity and provided

on a 3.5mm stereo socket instead of RCA phono) feed into a fully-balanced preamp stage on a main board stretching the width of the rear of the housing. The 6.35mm headphone socket, driven by its own amplifier, is also on the rear panel to keep signal paths short.

Outputs are provided on both balanced XLRs and conventional RCA phono, and the CDA2 Mk2 is built on a chassis combining steel and aluminium, mass damped in order to control resonances. The front panel is machined from a 13mm aluminium extrusion and has a silver anodised finish.

The AKM DAC is new, as is the improved transport, while the power supply and input/output gain stages and headphone amp have all been upgraded. The output section is also designed to drive long cable runs when, for example, the CDA2 Mk2 is connected to active speakers.

Lastly, a comprehensive IR remote handles all functions.

A JOY TO USE

However you feed the CDA2 Mk2, this unusual hybrid device sounds very special indeed, with a rightness and directness about the sound. There's tight, powerful bass, a clean, informative midband and a treble as explicit as it is sweet. It's this neutrality that makes it a joy to use. That this (relatively) affordable combination offers so much and yet adds or removes so little is a major achievement by ATC's engineers.

Its amazing how its 'nothingness' can prove highly addictive! Look no further than the eponymous debut

album by The B52's [Island Records]. Some saw the 'High Fidelity' logo on the cover as a joke, given the snappy, jerky rhythms, dense mixes and campy vocals, but the album lives up to the description right from the opening riff of 'Planet Claire'. The CDA2 Mk2 delivers it with real drive and a wide open view of the layers of the recording, charging through the album's paltry 39-minute playing time with such verve that it seems to be over almost before it's started.

Playing Pink Floyd's *Wish You Were Here* [EMI], in DSD64 via the USB input, the crisp resolution of the CDA2 Mk2's digital section allows the lumbering rhythms of 'Have A Cigar' to power out into the room, while making every detail of the lyrics and recording plain to hear. Meanwhile, its unfettered dynamics are perfectly suited to the slow burn of 'Shine On You Crazy Diamond' before it lets the guitar riffs scream out with fine attack.

Get somewhat spikier with Elvis Costello And The Attractions' *Armed Forces* album [Imp Records], and the gutsy Nick Lowe production combined with the still punky charge of the band on tracks such as 'Oliver's Army' and 'Goon Squad' is meat and drink for the wide-open ATC sound. It all comes up fresh as a daisy, reminding you what all the fuss was about back in 1979.

VERDICT

A music centre, ATC style – the CDA2 Mk2 may have all the air of 'a horse designed by committee', as it does so much. But this is more thoroughbred than camel, with a wide-open sound, masses of detail and unrestrained slam. If it does all you need, it's a bargain. ☺

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	18.4Vrms / 9.85ohm (XLR)
A-wtd S/N ratio (LPCM / CD / Preamp)	110.7dB / 110.7dB / 101.7dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.00064% / 0.00035%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.0043% / 0.00075%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to -0.5dB/-1.2dB/-17dB
Freq. resp. (Preamp, 20Hz-20kHz/100kHz)	+0.0dB to -0.05dB / -0.7dB
Digital jitter (48kHz/96kHz / CD)	55psec / 35psec / 145psec
Power consumption	10W (9W standby)
Dimensions (WHD) / Weight	445x90x330mm / 7kg

AUDIO FILE

CD/SACD player/network streamer/DAC
Made by: Data Conversion Systems Ltd, Cambs
Supplied by: dCS Ltd
Telephone: 01954 233950
Web: www.dcsld.co.uk; www.absolutesounds.com
Price: £55,000



dCS Vivaldi One

This is a limited edition of just 250 pieces, designed to celebrate the company's 30th anniversary. Think of the £55k Vivaldi One as a stepping stone between the company's past and future – it packages up much of what dCS has worked on before, and adds something new too...

CEO David Steven says it's essentially a full Vivaldi separates

'The Vivaldi One strings together 1's and 0's in a spookily natural way'

system [HFN Feb '13] in a single box – with its electronics (processing platform, Ring DAC, network board, clocking), plus chassis design, transformers, isolation and layout all closely following Vivaldi principles.

It also sports what the company believes to be the best SACD/CD optical disc mechanism available, TEAC's Esoteric VRDS Neo mk3.

This new creation has the option of everything from gloss white or black (£2300 extra) to nickel plate (£5000), black chrome plate (£11,500), and even a Decoplate 24-carat gold (£20,000)!

Effectively a highly complex digital audio processor with its own optical drive the Vivaldi One is

extraordinarily versatile, supporting LPCM up to 384kHz/24-bit, DSD up to DSD128, plus DSD in DoP format and all major lossless codecs including MQA-encoded files. Importantly, the machine is easily upgradeable via firmware updates.

Digital inputs include S/PDIF, AES/EBU, asynchronous USB, plus Ethernet for streaming, while there's also a vast range of outputs including dual AES, standard AES/EBU and S/PDIF, with analogue outputs covered by unbalanced RCA and balanced XLRs. The Vivaldi One also has the

company's latest streaming board fitted, and is certified Roon Ready as well as having Tidal, Apple AirPlay and Spotify Connect functionality.

This highly complex beastie is configurable via a menu system, navigated via its superb, pin-sharp OLED display (or by app).

VIBRANT AND ORGANIC

The Vivaldi One manages to string together 1's and 0's in a spookily natural way. It appears to magically 'unlock' digital music files, no matter how they are delivered, and is far more agnostic over the choice of format than you might imagine.

If it's a fine recording then it will sound great regardless of media. If

it's a bad one then you can still hear past that and enjoy the music.

Its soundstaging is sublime. We had always heard 808 State's 'Ancodia' [90; ZTT] as a diffuse wash of sound with imprecise stereo imaging. Yet the Vivaldi One revealed the different strands of the mix – lead keyboard, backing synths, drum machine, bass synthesizer – all clearly spatially delineated.

Timbral detail proved breathtaking too. Donald Fagen's 'Tomorrow's Girls' [Kamakiriad; Reprise] is hardly dripping with colour and contrast, yet with the Vivaldi One you could hear all the effects-pedals on the guitar work, keyboards and drums, and despite being processed Fagen's voice had a startling immediacy.

Paul McCartney's 'Band On The Run' [Hear Music] was also rich with harmonic detail, especially the wonderfully raspy trombone heard in the bridge to the middle-eight. The electric organ shimmered and steel string guitars had a magnificent sheen.

The Vivaldi One showed itself to have blistering dynamics too, making The Who's 'Won't Get Fooled Again' [Who's Next; Polydor] sound like a controlled explosion. Pete Townshend's crackling guitar riffs battling it out with Keith Moon's staccato snare drum – cymbals crashing away as he 'machine-guns' those pan rolls – had us mesmerised.

VERDICT

The Vivaldi One shines a penetrating light on the recording, taking you up close and personal. It's a majestic performer that looks visually striking too, but it is the sound that you will never forget. ☺

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	5.88Vrms / 560mohm (XLR)
A-wtd S/N ratio (LPCM / DSD)	117.0dB / 116.5dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.00005% / 0.00009%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.00024% / 0.00035%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to -0.0dB/-0.7dB/-7.4dB
Digital jitter (48kHz/96kHz / DSD)	50psec / 45psec / 22psec
Resolution @ -100dB/-120dB	±0.1dB / ±1.5dB
Power consumption	34W (1W standby)
Dimensions (WHD) / Weight	444x220x420mm / 27.4kg



"The M-150 from Micromega's M-One series is surely this year's most intriguing new integrated amplifier"
By Paul Miller, EISA president



"Its remarkably capable, flexible and well sorted, the MARS room correction is convincing, and the performance is similarly impressive: able to sound at turns lusty and supremely delicate and above all consistently in control."
By HifiNews



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Tel: 03301 222 500
www.scvdistribution.co.uk
Email: sales@scvdistribution.co.uk



AUDIO FILE

CD/SACD transport/PSU and mono DACs
Made by: Esoteric Co., Tokyo, Japan
Supplied by: Pioneer and Onkyo Europe GmbH, UK office
Telephone: 0871 200 1996
Web: www.esoteric-highend.eu
Prices (P1/D1): £33,000 (with PSU)/£16,500 (each)



Esoteric Grandioso P1/D1

This is one of the most complex and flexible digital players we have savoured, coming from the select group of companies pushing the digital envelope. Costs are £33,000 for the two-chassis CD/SACD transport/PSU and £16,500 for each mono DAC. Esoteric's G1 Master Clock, not supplied here, would add another £23k. Unsurprisingly, the very first blast via this set-up was nothing short of spectacular...

Set-up connections can be as straightforward or as complex as you like. The transport feeds the mono D1 DACs via HDMI cables, but you can also use BNC, XLR or RCA

'Tear-your-head-off riffing? It simply lifted its skirts and danced'

coaxial for the P1's digital output. The mono DACs afford the user having multiple digital sources a choice of other inputs including two on coaxial, XLR balanced, Toslink optical and USB. Lastly, the line output from the DACs is available as balanced through XLRs, or single-ended through RCAs.

Those who wish to do so can dabble with a plethora of settings that include digital filter on/off, up-conversion to 384kHz and DSD, and clock synchronisation. In practice, we couldn't better the HDMI/DSD Direct setting. A host of operational modes can also be selected, including an adjustable dimmer for the displays, automatic power savings, and connecting to a computer (Mac/Windows) for playing files you may have on your hard drive, or wish to stream.

DEPTH AND DETAIL

The first disc we played was the sublime SACD of Dean Martin's 1960 *This Time I'm Swingin!* [Mobile Fidelity]. And here was a sound that exhibited all the silky sheen that characterised Capitol Records' glory years. Exhibiting stereo qualities to rank with the most convincing of audiophile discs of later decades, this set features Nelson Riddle and an orchestra capable of bloom and grandeur. Transparent? Open-sounding? Authentic? We were staggered at how much it extracted from this SACD – in stage depth (somehow the P1/D1 was able to push back the wall behind

LEFT: The two-chassis P1 has its main on/off button on the power supply [lower unit]. The transport chassis itself features a slim tray, blue-on-black display and conventional pushbuttons

the system a good few feet) and retrieval of low-level detail. There were minuscule notes and tics and sonic clues that made the performances that much more life-like. The punch of the brass stage-right, punctuated by the percussion, all presented as 'of a whole', yet clearly letting you focus on specific players without effort.

Next up, was the hardest of hard rock, Rick Derringer's *All American Boy/Spring Fever* [Vocalion] deliciously nasty, guitar-driven material that takes no prisoners. The opener, 'Rock And Roll, Hoochie Koo', is an onslaught of fuzz and power chords and tear-your-head-off riffing. For the Esoteric stack, this was simply a case of lifting its skirts and dancing. 'Cheap Tequila's percussion at 38s in, the cowbell in 'Uncomplicated', the stereo guitars in 'Teenage Love Affair', Derringer's slightly nasal vocals above it all... The P1/D1 can rock as well as croon.

VERDICT

Sound? Exquisite, by any standards. Build quality? Peerless. Behaviour? Faultless. These units represent the best access to a format (SACD) which few appreciate. Ⓛ



HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	4.75Vrms / 50-55ohm (XLR)
A-wtd S/N ratio (CD / SACD / DAC)	107.1dB / 107.5dB / 107.7dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.00053% / 0.00085%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.022% / 0.00065%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to -3.2dB/-4.0dB/-8.4dB
Digital jitter (ES-Link / S/PDIF / i.Link)	125psec / 915psec / 35nsec
Resolution @ -110dB (CD / SACD / DAC)	±1.2dB / ±0.2dB / ±0.7dB
Power consumption (P1 / D1)	16W / 13W (each)
Dimensions (WHD, each) / Weight (total)	445x162(132)x448mm / 99kg



CD player with outboard PSU
Made by: Métronome Technologie, France
Supplied by: Absolute Sounds Ltd
Telephone: 0208 971 3909
Web: www.kalista.audio; www.absolutesounds.com
Price: £31,998

AUDIO
FILE



Kalista DreamPlay ONE

Successor to the four-piece Kalista DreamPlay CD/DAC [HFN Nov '17], this, says Métronome's Jean Marie Clauzel, is a response to 'a real demand from customers'. Here the integrated transport and DAC are in one chassis, with the rectangular Elektra power supply from the earlier DreamPlay model outboard.

The new £32k DreamPlay ONE features a nifty touchscreen for controls, although with the remote you cannot access the selection of its six digital filters, precluding A/B listening from the 'hot seat' – a

a series of all-too-easily-bent pins. The only other connection is the analogue output choice of single-ended versus XLR-balanced.

As a top-loader the DreamPlay ONE's open access is a delight, save for one issue: this gorgeous piece of functional sculpture deserved some form of fitted cover. With no disc in place, the puck doesn't protect the laser from airborne dust unless you line it up precisely.

DELICIOUS MIX

Starting with Mickey Thomas's cover of 'Delta Lady' [Marauder; Gigatone]

we were immediately bowled over by the silkiness of this player. The Kalista DreamPlay ONE dealt with the assorted rhythms in this funk-fest with a delicious mix of robust bass, punchy brass, piano, guitar and gospel-style backing with a near-forensic clarity.

Layer upon layer of sound was presented with the sort of transparency that causes reviewers to swoon. There was nothing out of place, obscured or suffering from compressed or truncated dynamics.

Spinning a Japanese import CD of Lou Rawls' peerless *At Last* [Blue Note], the title track's rich piano opening had a mass and form that revealed the DreamPlay ONE as one of the most natural-sounding CD players we have ever used – the

'Regardless of the type of disc, this is exactly how CDs should sound'

pity because the filters do have a bearing on sound quality depending on the CD. We didn't find any one setting as an ideal default, although we opted for 'Sharp Roll-off' for most of the time. Tap the settings icon (top left of the display) and you first are offered analogue outputs of 1.4V, 2.5V and 3V, to match to your preamp. We set it in the middle.

Set-up is simple, and operation simpler, but one needs to be careful with the inflexible umbilical between the power supply and player because the plugs contain

transients were precise and with the sort of decay that you expect of vinyl. Piano is its *forte* here (!), but the vibes on 'She's No Lady' provide this player with a party trick that would dazzle the most spoiled of our audiophile readers.

The DreamPlay ONE delivered all of the characteristic ringing overtones. The mallets could be heard making contact with a sheer presence that eliminated the physical manifestation of the system itself, our speakers 'disappearing'.

On 'Footsteps Of A Fool' [Under The Gun; Geffen Japan] delicate vocals floated over fuzz guitar. The piano exhibited richness and mass, while all of the sound textures competing with each other maintained their identities with unmistakable precision.

Overriding the entire epic were the group's massed vocals, employing the full width of the soundstage. Every single voice could be located, and the overall effect was near-Spectorian. Even if you know this material inside-out, you would certainly be caught out by the sax solo 3m into the track. This is exactly how CDs *should* sound.

VERDICT

The Kalista DreamPlay ONE is, indeed, a dream of a player – we fell in love in 30 seconds. It wouldn't make us forsake vinyl or open-reel tape, but it *would* grab the first chunk of any lottery win (as if!). ☺



HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	2.8-5.8Vrms / 19ohm (XLR)
A-wtd S/N ratio	114.7dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.0086% / 0.0016%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.023% / 0.0032%
Frequency response (20Hz-20kHz)	+0.0 to -4.5dB (to -9.5dB)
Digital jitter	720psec
Resolution @ -100dB / -110dB (re. 1kHz)	±0.1dB / ±1.0dB
Power consumption	10W (1W standby)
Dimensions (WHD) / Weight	450x135x460mm / 24kg

AUDIO FILE

Network-attached DAC/streamer
Made by: Naim Audio Ltd, Salisbury
Supplied by: Naim Audio Ltd
Telephone: 01722 426600
Web: www.naimaudio.com
Price: £4999



Naim Audio NDX 2

In October '16, when Naim Audio launched its four 'new Unit' models, the question was asked: would this new technology also be applied to the ND-series of network music players? The answer 'yes' has now come to fruition. Selling for £4999, the NDX 2 sits in the middle of a lineup that replaces the NDS, NDX and ND 5 XS with much more capable models.

The NDX 2 is a somewhat simpler device than the flagship ND 555 as it lacks that model's extensive use of suspended circuitboards, multiple Naim DR voltage regulators and shielded as well as decoupled streaming board and inputs.

The PCBs here are decoupled too, but not to the same extent of those in the ND 555, and neither does the NDX 2 use the top model's suspended Faraday Cage design.

'A broad, sharp-focused soundstage was almost three-dimensional'

However, unlike the ND 555, the NDX 2 is usable straight from the box, thanks to built-in power supplies fed from a substantial toroidal transformer. There's also a small switch mode power supply which operates only when the unit is in standby – switch on and the main linear PSU takes over.

And being a Naim, the player can be upgraded with the addition of an XPS or 555 PS DR if required. Add one of these PSUs and the internal supply is completely bypassed.

The NDX 2, like all the new Naim ND-models, comes in the company's full-width casework with a 'best

basic black with green logo' look. Under the lid, the star turn here is a new platform, which updates the capabilities of the old ND-series. The inclusion of Chromecast Built-in opens up the player to a whole range of streaming audio possibilities at up to 192kHz/24-bit, allowing the NDX 2 to stay in tune with newly-launched music services.

The NDX 2 is also compatible with streaming services including Tidal and Spotify, is Roon Ready, has AirPlay via its network connection, Bluetooth aptX HD wireless connectivity, and of course vTuner Internet radio capability.

Network music playback is also greatly enhanced, its UPnP capability now extending to 384kHz/32-bit and DSD128. Naturally, the NDX 2 also has optical and coaxial digital inputs, plus front and rear USB Type A sockets for music stored on memory devices or portable players. Wi-Fi is provided as well as Ethernet connection, Naim saying its improved

2.4/5GHz implementation allows greater flexibility for the wireless streaming of higher-resolution files.

FAST REACTOR

While this new network player may have just gained a whole load more flexibility, its sound remains resolutely 'Naim' – fast and exciting, bold and rich, allied to a highly nuanced view of the detail within a recording, and the presence and ambience of a performance.

That means that the driving rhythms of the mixed bag that is the *Graceland: Remixes* version of Paul Simon's classic album

ABOVE: The large, clear colour display will also show album artwork. 'Hard buttons' to its right control power, play/pause, input selection and favourites. The slot on the left is for USB memory devices

[Legacy Recordings] are delivered with speed and deftness, with 'remixed' power in the bass and real attack in the electronica making these familiar tracks all but unrecognisable. It's hard not to like Richy Ahmed's thumping take on 'The Boy In The Bubble' when the NDX 2 gets to grips with its deep, heavy bassline, or the trippy run Groove Armada take at the song 'You Can Call Me Al'.

On to more familiar audiophile fare, and Pink Floyd's *Wish You Were Here* [EMI; DSD64] sounded big and magnificent, the long slow build of 'Shine On You Crazy Diamond' tingling and shimmering through the speakers in a broad sharp-focused soundstage that was truly three-dimensional. The familiar guitar line cut through with almost surgical electricity.

Whether with its digital inputs, streaming music from network storage or playing tracks stored on USB sticks, there was no doubt that the new NDX 2 player offers remarkable musical insights. This was clear with the Budapest Festival Orchestra/Iván Fischer recording of Mendelssohn's *Midsummer Night's Dream* [Channel Classics; DSD128]. The sheer weight and attack of the orchestra in the more exuberant passages was combined with fine detail available in quieter moments, and the sense of an orchestra in a living, breathing soundstage.

VERDICT

Naim has now given its ND-series players a complete update, and with the superb NDX 2 this has been achieved at no expense whatsoever to the sound, which remains thrilling, fulfilling and entirely musical, regardless of source. ☺

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	2.22Vrms / 17-191ohm
A-wtd S/N ratio (S/PDIF / USB)	109.1dB / 109.0dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.00028% / 0.0053%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.0034% / 0.0012%
Freq. resp. (20Hz-20kHz/30kHz)	+0.0 to -0.65dB/-15.9dB
Digital jitter (48kHz / 96kHz)	65psec / 105psec
Resolution @ -110dB (S/PDIF / USB)	±0.6dB / ±0.6dB
Power consumption	16W (1W standby)
Dimensions (WHD) / Weight	432x87x314mm / 10kg



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 **MQA**



SoundEngine2

AUDIO FILE

Network bridge/USB I/O device
Made by: Pro-Ject Audio Systems, Austria
Supplied by: Henley Audio Ltd, UK
Telephone: 01235 511166
Web: www.project-audio.com; www.henleyaudio.co.uk
Price: £599



Pro-Ject Stream Box S2 Ultra

The latest arrival from the Pro-Ject stable is this £599 Stream Box S2 Ultra which is display-less, USB-based and has no on-board DAC. Described by the company as an ‘audio optimised network bridge and USB detox device’, this little box gives few clues to its function.

On the front panel there’s no more than a power button, a ‘USB/PC’ button and a USB Type A socket, while the box is powered from a simple plug-top supply. The front-panel USB socket can be used

‘There was more detail, and a greater weight in the bass’

to play music stored on memory devices such as thumb-drives, as can a second rear-mounted USB input.

But what’s new here is that the S2 Ultra is designed purely to work with DACs having USB input capability – USB being its only audio output – and its main function is to convert existing DACs of this kind into network-capable devices, thanks to both Ethernet and Wi-Fi connectivity. If you’re currently using such a DAC with your computer to stream music stored on that device or on network

storage, and to access online streaming services or Internet radio, the Stream Box S2 Ultra will take over that functionality.

However, the major appeal of this unit will be its ability to ‘smart up’ your system with a dedicated device for music streaming. At its heart is a Raspberry Pi computer board for all the input and output management, while both the streaming and control is in the hands of open-source software.

That leaves the hi-fi-specific engineering to provide the ‘added value’ here, from that USB ‘detoxer’, which cleans and regenerates any PC/Mac-derived USB audio signal passing through its micro USB-B input, via a bespoke jitter suppression regime and on to the S2 Ultra’s carefully designed power supply filtering.

It was easy to set up the S2 Ultra, using either Wi-Fi (the usual stub antenna is supplied) or Ethernet. Logging in to Spotify and Tidal was also simple, and this Pro-Ject box also appeared on our Roon app.

MORE BASS GRUMBLE

As we have noted with similar, if rather more expensive, ‘bridge’ devices in the past, the sound is almost entirely dependent on the abilities of the DAC with which it’s used. So let’s begin with its ‘bonus’

role as a USB ‘detoxer’, something that designer John Westlake has been working on for some time.

In every combination we tried – from various Macs connected to the USB-B inputs on the likes of iFi Audio’s Pro iDSD [HFN Sep ’18] and the Quad Artera Solus [HFN Jun ’18] through to a Raspberry Pi as player into a Chord Mojo [HFN Jan ’16] and Meridian Explorer2 – the S2 Ultra’s pass-through USB ‘cleaner’ revealed more detail in the sound, not to mention greater weight and definition in the bass.

That meant more of a grumble and a sense of strings vibrating in Marcus Miller’s playing in *Laid Black* [Blue Note]. It also projected a better sense of the weight and punch of the drums on the march from ‘1941’ on Reference Recordings’ *John Williams At The Movies*. That made this outlandishly dynamic production even more dramatic and thrilling, and the impact of the snares, not to mention the textures within the woodwind and brass, were even better delineated, even when the band was working hard.

We must say that the S2 Ultra worked seamlessly with all the USB-capable DACs we had to hand, and made it very simple to access both network- or USB-stored music and online services. Yes, you could do much the same with a bit of mini-computer assembly, downloading of software, installation and set-up, but the beauty here is that all the work is done for you. And you can just plug in the unit and be listening almost instantly.

VERDICT

The Stream Box S2 Ultra makes very light work of adding streaming to your system and is a perfect choice for anyone new to the technology. Ⓛ

HI-FI NEWS SPECIFICATIONS

Digital inputs	Ethernet, 2x USB-A, micro USB-B, BT
Digital outputs	1x USB 2.0 Type A; 1x HDMI
Digital jitter (Oppo Sonica)	112psec (155psec via PC USB)
Digital jitter (iFi Audio iDSD)	11psec (140psec via PC USB)
Digital jitter (Chord Mojo)	12psec (85psec via PC USB)
Power consumption	8W
Dimensions (WHD) / Weight	103x37x115mm / 375g

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01394 672464/5

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01279 454 860

Tom Tom Audio*
St Albans
01272 810047

NORTHWEST

Acoustica*
Chester
01244 344227

Audiovation (Huddersfield Hi-Fi)
Huddersfield
01484 424000

Brian & Trevors*
Manchester
0161 7664837

The AudioWorks
Cheadle
0161 428 7887

NORTH EAST

Audio Images*
Sheffield
0114 273 7893

DNA Audio
Leeds
01943 850 650

Fidelity Sound and Vision
Doncaster
01302 563123

Hifisound*
Stockton-On-Tees
01642 267012

The Audio Room
Hull
01482 891375

WALES

Acton Gate Audio
Wrexham
01978 364500

SCOTLAND

Hi-Fi Corner*
Edinburgh
0131 556 7901

Hi-Fi Corner*
Falkirk
01324 629 011

The Movie Rooms*
Edinburgh
0131 558 1310

The Music Room
Glasgow
0141 333 9700

**ACOUSTIC
ENGINEERS**



AUDIO FILE

SACD/digital media transport/DAC combination
Made by: PS Audio, Boulder, Colorado
Supplied by: Signature Audio Systems
Telephone: 07738 007776
Web: www.psaudio.com; www.signaturesystems.co.uk
Price(s): £6000/£5500



PS Audio DS Memory Player/PW DirectStream DAC

As the name suggests, PS Audio's DirectStream Memory Player is much more than just a CD/SACD transport. It will seemingly play every flavour of physical disc, together with a host of music files from discs or via its front USB input.

It has a network connection too, and not only offers digital output from stereo/multichannel

'It will bring on the sonic fireworks given a fine recording'

SACDs, but also has an I²S interface designed to service the same inputs on the DAC. Thus PS Audio can preserve the encryption between transport and DAC while still getting the SACD data out of the transport as a native 1-bit bitstream.

The partnering Memory Player has S/PDIF and AES/EBU outputs, of course, but the serious stuff uses PS Audio's proprietary HDMI-based I²S connection, with three sockets carrying front L/R, surround L/R and

centre/sub channels for use in 5.1 systems playing multichannel SACD and/or DSD/LPCM downloads.

The Memory Player also uses the company's 'Digital Lens' technology, to isolate and buffer the output from the disc-reading section. Present, too, is a fully linear power supply, in place of the more common switch mode option.

And that's just the transport! While the DAC's 1-bit/DSD technology here may be familiar from previous PS Audio models, updates in both facilities and performance have been made. With the £799 PS Audio Bridge II add-on network card option, the

DirectStream DAC can now do just about everything any user could sensibly want it to – supremely well too as we immediately found.

SHEER DYNAMICS

Playing 'Visions Of China' from Japan's *Tin Drum* album [Virgin] was a delight, the sinuous rhythm section sounding at once tight and fluid, and David Sylvian's voice crisply rendered in its mannered fragility. Switching from CD quality

to DSD, not to mention accessing it via USB-B, network streaming or using Roon, reveals there's really not much in it when played through the DirectStream Player/DAC.

Explore the hard-hitting, multilayered percussion of The Rhythm Devils' *The Apocalypse Now Sessions* [Rykodisc], and the sheer definition and dynamics of the DirectStream Player/DAC is much in evidence. And this was true from the 'this is going to end badly' jungle ambience of 'Street Gang' through to the disquieting slamming of 'The Beast'.

Not that it does a 'silk purse' job on recordings. Faced with audiophile darling Melody Gardot's recent *Live In Europe* set [Verve Records; 96kHz/24-bit], there's not much that can be done with the singer's swallowed, affected vocals, even though the recording itself sounds reasonable enough. Yet the DirectStream Player/DAC sounded true to the recording, revealing the strange vocal quality in all its oddness, but still not making what she's singing any clearer!

However, it's when you give it a fine recording, like horn player Ben Goldscheider's *Debut* [Willowhayne Records; 192kHz/24-bit] that it brings on the sonic fireworks, with wonderful instrumental texturing, presence and depth.

VERDICT

PS Audio's digital offering has always been impressive, but recent upgrades have lifted the DirectStream DAC, in particular, into another league of great flexibility and scintillating sound. The Media Player is a versatile partner in crime, with SACD playback enhanced by that proprietary digital link. ☺

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	2.83Vrms / 145-149ohm (XLR)
A-wtd S/N ratio (S/PDIF / I ² S)	96.4dB / 96.3dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.015% / 0.0019%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.031% / 0.0042%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	-0.2 to -0.1dB/-1.1dB/-9.7dB
Digital jitter (48kHz via S/PDIF / I ² S)	70psec / 62psec
Resolution @ -110dB	±0.1dB
Power consumption (Player/DAC)	11W/28W (1W standby)
Dimensions (WHD, each) / Weight (total)	430x100x360mm / 33kg



Network-enabled media storage device
Made by: Roon Labs LLC, New York
Supplied by: Henley Audio Ltd, UK
Telephone: 01235 511166
Web: <https://roonlabs.com>; www.henleyaudio.co.uk
Price: £2500

AUDIO
FILE



Roon Nucleus+

There's every sign that Roon, the music server/database software, is becoming more mainstream. And now the company has entered the hardware market with a pair of hub components co-developed with Intel – the £1500 Nucleus, and the £2500 Nucleus+ reviewed here.

Both are compact matt black boxes some 21cm wide, and housed in casework with pronounced heatsink fins to the top and sides, with all control via a connected

'There was serious bass punch and huge amounts of detail'

computer or a smartphone/tablet running the Roon app.

They are built around an Intel processor: an i7 in the Nucleus+, backed up with 8GB of RAM. They don't include a hard drive but will accept, inside, any 2.5in SATA drive, SSD or HDD, subject to a maximum drive height of 9.5mm.

You can load some music on to the drive if you like, but the intention is that the real music library should be stored externally. This would either be on connected USB drives or network storage.

To connect those content stores there's a pair of rear USB ports, plus an Ethernet socket for networking, and one of the USBs can also be

used to feed audio to a suitable DAC. There's also an HDMI output, for stereo/multichannel audio, and a Thunderbolt port that 'may become active in a future firmware update'.

So what exactly is the Nucleus, and what is it actually doing? Effectively it's an Intel NUC [Next Unit of Computing] – remove the SSD and the board is visible, along with its in-house processor. This comes loaded with the 'Roon Optimised Core Kit', which combines a lightweight Linux OS with the RoonServer software to create the Roon OS.

The Nucleus is fanless and is powered by an offboard 19V power supply. As to cost, you'll need to factor in the Roon subscription, which is \$119 for a year, or \$499 for a lifetime.

The whole basis of Roon is not just providing server software for your music, but also indexing it and adding information from the company's own servers to make listening both more intuitive and pleasurable. It can even integrate Tidal and Internet radio streams for truly seamless listening.

Among other things, Roon will handle files all the way up to multi-DSD, in stereo and multichannel, and also provide DSP equalisation, optimisation for speaker position and more, as well as providing on-the-fly up- or downsampling to suit the output device. The Nucleus+ has capacity for larger numbers of

ABOVE: The fascia of the Nucleus+ is a case of 'move along now, nothing to see here'. The whole enterprise is about stealthy black-finished aluminium, with nothing on show bar a Roon logo

tracks/files and Roon zones, and the full suite of DSP functionality for PCM/DSD files.

ROCK SOLID

Getting to 'how does it sound?' is tricky because the Nucleus+ really doesn't 'sound' like anything. Yes, there were gains in clarity and bass definition when comparing the Roon device with our Mac mini 'computer music' player, with a shade more vibrancy and presence, but these were extremely subtle, and far outweighed by the differences between various DACs when fed from the Nucleus+.

We greatly enjoyed playing some of the multichannel hi-res content stored on our servers. The effect of being enveloped in the original, unreleased multichannel recording of Pink Floyd's *Dark Side Of The Moon* was suitably nostalgic, and the Nucleus+ allowed the system to wrap the sound around the room, while still delivering serious bass punch and huge amounts of detail.

With its rock-solid operation the Nucleus+ could deliver more of the music than the best of the computer sources we've encountered. And some of the various DSP functions Roon offers can be remarkably effective. It was surprising how much difference to the image was made when the tiniest of delays was applied to one of the two speakers in our desktop system, while a small amount of crossfeed between the speakers had interesting effects on soundstaging.

VERDICT

The Nucleus+ offers a solid platform on which your chosen DAC can strut its stuff. You can be sure its combination of style, joined-up thinking and sheer user appeal will make it an intriguing addition to any 'computer audio' system. Ⓛ

HI-FI NEWS SPECIFICATIONS

LAN (1000BASE-T)	Gigabit Ethernet
Digital outputs	2x USB 3.0 Type A; 1x HDMI
Digital jitter (Oppo Sonica)	125psec (155psec via PC USB)
Digital jitter (iFi Audio iDSD)	<5psec (140psec via PC USB)
Digital jitter (Chord Mojo)	35psec (85psec via PC USB)
Power consumption	10W
Dimensions (WHD) / Weight	212x74x156mm / 2.5kg

AUDIO FILE

Network-enabled outboard DAC/CD/SACD player
Made by: T+A elektroakustik GmbH & Co. KG, Germany
Supplied by: Kog Audio, UK
Telephone: 01353 721089
Web: www.taelektroakustik.de; www.kogaudio.co.uk
Price: £8366



T+A MP 2500 R

Here, in one hefty chunk of brushed silver or black aluminium, complete with a large viewing window to show its inner workings, is an £8366 SACD/CD player and a multi-input DAC complete with a USB Type B for a computer and Type A inputs for playback from memory devices. It's also a full-blown network audio player providing access not only to music stored on your home computer or NAS, but also Internet radio, Qobuz and Tidal (Deezer streaming is coming soon).

'The MP 2500 R's big, gutsy presentation is instantly attractive'

And if the whole old-meets-new thing weren't already strong enough, it also has a built-in FM/DAB/DAB+ radio tuner – yes, the good old wireless! Not that there's anything at all old-fashioned about the MP 2500 R, which uses two DAC sections, one dedicated to PCM-based audio and the other to DSD.

The former employs four channels-worth of Burr-Brown/TI DACs per side in double-differential configuration and will handle data-rates up to DXD's 352.8/384kHz. DSD is in the hands of T+A's proprietary 1-bit DAC solution, all the way up to DSD512.

The player is based on the MP 2000 R mkII [HFN Feb '16] and uses the SACD/CD transport introduced in the MP 3100 HV [HFN Sep '17],

while that DSD DAC is derived from the PDP 3000 HV [HFN Mar '15]. But this is rather more than a grab-bag – if exotic – from the T+A parts bin.

T+A's transport adds to its dual-disc ability a beefed-up drive system using heavy-duty motors and dedicated laser optics for CD and SACD duties. It's mounted in an isolating case with a heavy aluminium plate to offer mass-damping, while the sliding loader uses a coated ABS cradle to ensure accurate disc location.

The network streaming board is also T+A's latest in-house design, optimised for high-res audio as well as flexibility when it comes to network music sources. Wi-Fi and Ethernet connectivity are available, along with Bluetooth with aptX and – as is seemingly

almost *de rigueur* these days – the MP 2500 R is set to be Roon-ready.

The MP 2500 R can be controlled by the supplied FM 1000 remote but, instead, we'd recommend a tablet running T+A's Navigator app.

BIG-BONED AND BOLD

The MP 2500 R is as simple to use as any multifunction player of its kind, and all of its options worked very well. And the sound is very typical of the brand: both big-boned and bold, with a weighty, well-detailed bass, and able to resolve detail without excessive forwardness.

The sound gives an immediate impression of smoothness and ease of listening, but the focus and three-dimensionality of the images, and the impression of a real acoustic

around the performances make it clear there's no excessive rolling-off or treble restraint going on here.

It's even possible to tune the sound to emphasise or diminish the ambience using the four-position digital filter switch. Filter 3 does give a slightly smoother sound, but we found the fourth option, which uses a pure Bezier Interpolator, made the most of the excellent crispness and definition available.

What's more, the player delivers the same full but refined balance across the range of its inputs. Once one is up into CD quality and beyond, the sound is both attention-grabbing and extremely satisfying. Even with recordings not known for their audiophile qualities, such as Blondie's *Parallel Lines* [Chrysalis], that big, gutsy presentation is instantly attractive, the MP 2500 R exploding into 'Hanging On The Telephone' with real intent, and keeping the charging rhythms tight. Similarly, with Eric Clapton's *461 Ocean Boulevard* [Polydor] the headlong rush of 'Motherless Children' shows the speed and dexterity of T+A's player.

It is also exceptionally well suited to 'as live' classical recordings, like the San Francisco Symphony's version of Varèse's 'Amériques' [SFS Media], where the MP 2500 R sounded firmly in control of both the explosive playing and the fluid tones of instruments, with that 'liveness' much in evidence.

VERDICT

Undeniably expensive, this media player delivers everything without compromise. Its big, bold yet lavishly detailed sound matches the solid, precision engineering of its design and construction. ☺

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	4.25Vrms / 44-52ohm (XLR)
A-wtd S/N ratio (LPCM / CD / SACD)	113.1dB / 113.8dB / 113.9dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.0014% / 0.0004%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.0015% / 0.015%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to -0.3dB/+0.3dB/-6.1dB
Digital jitter (S/PDIF / CD / SACD)	8psec / 118psec / 23psec
Resolution @ -110dB (S/PDIF / CD / SACD)	±0.5dB / ±0.5dB / ±0.4dB
Power consumption	21W (1W standby)
Dimensions (WHD) / Weight	460x165x400mm / 11.3kg

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AUDIO FILE

Headphone preamplifier. Rated at 6W into 16ohm
Made by: Benchmark Media Systems, Inc., NY, USA
Supplied by: SCV Distribution
Telephone: 03301 222500
Web: www.benchmarkmedia.com; www.scvdistribution.co.uk
Price: £3295



Benchmark HPA4

Benchmark's HPA4 has no built-in digital-to-analogue conversion and so, like Luxman's luxury P-750u [HFN Sep '18], is merely an all-analogue headphone amp. Available in either silver or black finishes, it sells for £3295 here in the UK.

'The HPA4 boasts a jaw-dropping impact, openness and vivacity'

'Merely', however, does the HPA4 a disservice, as there's nothing mere about it. Unlike most headphone amps able to double as a preamp, this one doesn't split its output between headphone sockets and preouts, but has discrete amplifier sections for the two functions.

Relays are used for input selection, gain control and muting while four independent 256-step attenuators, with gold-plated contacts, boast 'silky smooth volume changes'. Two attenuators feed the headphone outputs and two service the preamp outputs.

Meanwhile, there's a choice of standard 6.35mm stereo or four-pin balanced XLR connections for headphones, while the amplifier has a choice of RCA and balanced XLR preamp outputs plus, unusually, a summed mono balanced output.

Inputs are provided on two sets of balanced XLRs and RCA phono, and there's also a pair of 12V trigger connections to allow remote amplifiers to be switched on and off. The dimmable colour touchscreen allows the function of these to be adjusted, along with niceties such as input naming, setting volume offsets, etc. It's also possible to integrate the operation of a Benchmark DAC with the HPA4 via the handset. You can even lock out the settings should you share your life with someone likely to fiddle – or if you can't resist the temptation yourself!

SPRINGING TO LIFE
Listen to this all-analogue contender and the HPA4 has a jaw-dropping impact, openness and vivacity in the way it reproduces music. We played pianist Anna Fedorova's *Four Fantasies* [Channel Classics; DSD 256], and were instantly struck by the way it sprang to life, with every element of the playing, and the size of the Steinway in a credible concert-hall acoustic, on display.

It was one of those real 'performer in the room' experiences. That total openness was also much in evidence with Tom Jones's *Praise And Blame* [Island], with the powerful band resolved with superb impact, but

most of all the close-up view of that remarkable voice, particularly notably on 'What Good Am I?'.

The sound here is technically about as immaculate as you're going to get, but the real beauty of the HPA4 is the way it lets through all the intent of performers, producers and engineers. Play the flat dynamics of a recent release such as Nicki Minaj's *Queen* album [*Young Money*] and, for all the swagger and attitude supposedly in there somewhere, it sounds dull. But switch to Bill Frisell and Thomas Morgan's live *Small Town* set [ECM 2525] and instantly all the presence, ambience and instrumental timbre is restored.

Get things right and it can turn on the magic in a way that eludes many a much more expensive preamp, let alone one doubling as an outstanding headphone amp.

And it loves voices and real instruments, which allow it to shine, as is clear with Loreena McKennitt's recent *Lost Souls* album [Quinian Road], which absolutely sparkles.

Or take *Shine A Light*, 'Field Recordings From The Great American Railroad' [Cooking Vinyl], where the ambient effects on these location recordings are often quite literally startling – especially via headphones! Railway platform sounds and voices bubble away in the background, adding to the live ambience, and even the one 'indoor' track, 'Waiting For A Train', has a lovely intimacy to it.

ABOVE: The HPA4 is 'half width', with a single control for volume. There are 6.35mm and balanced XLR headphone sockets while the small touchscreen accesses the set-up menu

VERDICT

This is a slightly more complex buy than your average headphone amp, and most will need a partnering DAC, but the sound is beyond question. A remarkable product. ☺

HI-FI NEWS SPECIFICATIONS

Maximum output (<1% THD into 47kohm)	22,100mV (22.1V, XLR line out)
Maximum power output (<1% THD)	4.37W/25ohm / 7.65W/8ohm
Output Imp. (20Hz-20kHz, line/head)	30ohm / 0.46-0.78ohm
A-wtd S/N ratio (re. 10mW/0dBV)	103.3dB / 103.3dB
Distortion (20Hz-20kHz, re. 10mW/0dBV)	0.00005-0.0002% (both o/p)
Frequency resp. (20Hz-20kHz/100kHz)	+0.0dB to -0.0dB/+0.01dB
Stereo separation (20Hz-20kHz)	80-120dB
Power consumption	17W
Dimensions (WHD) / Weight	220x99x237mm / 3.6kg



Portable headphone preamplifier/USB DAC
Made by: Chord Electronics Ltd, Kent
Supplied by: Chord Electronics Ltd
Telephone: 02890 279839
Web: www.chordelectronics.co.uk
Price: £1800

AUDIO FILE



LEFT: One of the two rear micro USB ports is for charging, the other for audio, from driverless tablet/phone connection for HD audio up to 768kHz/DSD512. Spherical controls cover power, input selection, four filters and crossfeed options

Chord Hugo 2

For a relatively small specialist audio brand Chord Electronics has its bases covered in fairly spectacular fashion, from tiny pocket devices to hugely powerful amplification. And it constantly reinvents its products, to the extent that it can be easy to get lost in all the variants.

However, the £1800 Hugo 2 is just an updated version of the Chord's first portable DAC/amp, launched back in 2014. It's claimed to offer 'flexible new features, plus

so the Hugo 2 has – literally – more balls. These control power, input, filtering and crossfeed functions.

The micro USB input supports (driverless) portable devices, and there's full HD compatibility with PCM-based formats up to 768kHz/32-bit as well as DSD512. The original Hugo did 384kHz and DSD128 but the Hugo 2's optical and coaxial digital ins are capped out at 192kHz and 384kHz, as before. Meanwhile, a separate micro USB input is provided for charging the internal battery, said to be good for 14 hours' use.

There's also an improved Bluetooth implementation, now with aptX capability and claiming extended range, while the outputs are on standard RCA phenos, plus 3.5mm and 6.35mm headphone sockets. Outputs can be switched to a fixed 3V line level, allowing it to be used as pure source into a conventional preamp or integrated, while the new model also comes with a comprehensive remote that's handy for desktop use.

CLARITY WITH SLAM

From the off the Hugo 2 impressed with its neutrality and clarity, combined with excellent extension and definition in both the bass and treble, as was made clear with the

multiple layers of Queen's 'The Millionaire Waltz' [A Day At The Races; Island Japan], a seemingly simple track made challenging by Brian May's guitar orchestrations and the switching of tempo from ballad to driving rock. The tone of the layered guitars was striking via the Hugo 2, as was the sheer slam it was able to deliver, whether through 'phones or as a line source.

On a bit of a vintage trip, we loaded up some Genesis, in the form of 1972's *Foxtrot*, in both CD and DSD64 versions [Virgin/Charisma]. Here we greatly enjoyed the way the Hugo 2 charged out the rhythms of 'Watcher Of The Skies' and the twists and turns of the behemoth that is 'Supper's Ready'.

Listening through headphones we found the crossfeed filter, used with discretion, did a fine job. It created a more spatial, three-dimensional image, offering a more 'out of the head' experience.

Switching to Boston Baroque's highly atmospheric recording of Heinrich Biber's 15 *Mystery Sonatas* [Linn], the minimal use of the crossfeed gave a more enveloping effect through headphones without robbing the sound of any of its definition. That said, this 192kHz/24-bit recording does also sound magnificent when the Hugo 2 is used as 'just a DAC', with a wonderfully crisp string tone and a suitably reedy organ sound.

VERDICT

The Hugo 2 performs as well as a portable headphone amp as it does as a main-system DAC. The redesign has added extra facilities to improve the listening experience, making it both a technological achievement and a sonic one. ☺

HI-FI NEWS SPECIFICATIONS

Maximum output (re. 0dBFS into 47kohm)	4.58V (line out)
Max. power output (re. 0dBFS into 250ohm)	825mW (headphone out)
Output Impedance (20Hz-20kHz)	<100mohm
A-wtd S/N ratio (0dBFS: re. 2V/10mW)	110.1dB / 103.5dB
Distortion (20Hz-20kHz, re. 10mW)	0.0003–0.009%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to -0.0dB/-1.5dB/-7.3dB
Digital jitter (into 250ohm / 600ohm)	<10psec / <10psec
Power consumption	2x2600mA/3.7V batteries
Dimensions (WHD) / Weight	100x130x21mm / 450g

AUDIO FILE

Battery/USB hub-powered DAC and headphone amp
Made by: iFi-Audio (Abingdon Global Group), Merseyside
Supplied by: iFi Audio
Telephone: 01900 601954
Web: www.ifi-audio.com
Price: £399



iFi Audio xDSD

The xDSD sets the standard for iFi Audio's latest range of products. To begin with, it's a more portable design than previous models, it comes with improved connectivity, while the £399 price tag pits it right against the Chord Mojo [HFN Jan '16].

It also makes a good impression straight out of the box, its slimline, design looking considerably more elegant than its predecessor, and you can easily carry it around in a jacket pocket when travelling. The

'The opening cymbal crash rang out like shattering glass'

gleaming magnesium alloy casing certainly feels sturdy enough to cope with a few bumps when you're out on the road.

The xDSD employs the same Burr-Brown DSD1793 DAC chip as the rest of iFi Audio's portable range, but includes a redesigned headphone amp. There are also additional connectivity options, including Bluetooth with AptX.

There's a single 3.5mm connector provided on the front for your headphones, but this can also be switched to a fixed-level line-out mode if you want to connect it to your home hi-fi system. One other addition is a combined 3.5mm coaxial/optical digital input to cater

for high-end digital audio players (DAPs) or other devices such as a TV or networked media server.

Using the xDSD with a computer is straightforward, as iFi Audio includes a thick, metre-long adapter cable. The S/PDIF interface handles files up to 192kHz/24-bit, while the pre-installed v5.3 firmware supports up to 384kHz/24-bit via USB, along with DSD256 and the MQA format used by the Tidal streaming service.

There's a switch on the back that allows you to select either the default 'Listen' filter, or the alternative 'Measure'. You can also choose two optional analogue effects, called '3D+' and 'XBass+', the former offering a holographic soundfield' that attempts to increase the sense of stereo separation while wearing 'phones.

The iFi Audio website says the internal battery will last for ten hours when using the S/PDIF connector, but USB only lasts for six.

PERFECT START

Normally when playing Blondie's 'Rapture' from *The Very Best Of Blondie* [EMI/Chrysalis], we tend to listen out for the bass guitar to kick the song into action, but the xDSD made us really pay attention to the sharp, percussive intro as well.

The opening cymbal crash rang out like shattering glass. The firm and precise drum beat set the pace, with the lightly tapped hi-hat ticking

along with an infectious rhythm creating the perfect opening for that impeccably funky bass line to make its entrance.

As we felt the XBass+ option made little difference to mid-bass on 'Rapture', we delved into the deeper, electronic sounds of 'Prime Evil' by The Orb [*Bicycles And Tricycles; Cooking Vinyl*] to see how it handled some seriously deep bass. Even unassisted, the xDSD delivered the track's opening bass line with a deep, rumbling sound that drove the song forward with a sinuous, almost sinister, rhythm.

Adding the 3D+ effect to 'The Prophet's Song' by Queen [*A Night At The Opera; Parlophone*] the xDSD landed Brian May's power chords like a sharp punch to the jaw. We've heard claims of '3D sound' before, and they rarely amount to anything more than a gimmick, but the iFi xDSD managed to make gentle but effective sound adjustments.

Switching to 'line-out' mode, we listened to Kate Bush's solo vocal on 'My Lagan Love' [*Hounds Of Love; EMI*], rising effortlessly from our speakers and filling the room with warm, wistful tones. It was impressive to hear a sound of such richness and clarity emanating from such a tiny device. The xDSD proved equally adept with the dense avalanche of percussion on 'The Big Sky' separating the cascading layers of drums admirably.

VERDICT

The lightweight xDSD packs a heavyweight punch. Its slimline design is ideal for travelling, and includes features that few of its rivals can match. But it's the sound quality that earns it a place at the forefront of a competitive field. Ⓛ

HI-FI NEWS SPECIFICATIONS

Maximum output (re. 0dBFS into 47kohm)	2.12V (unbalanced line out)
Max. power output (re. 0dBFS into 250ohm)	330mW (headphone out)
Output Impedance (20Hz-20kHz)	0.45-0.81ohm
A-wtd S/N ratio (0dBFS; re. line/10mW)	107.2dB / 107.8dB
Distortion (20Hz-20kHz, line/ re. 10mW)	0.0024-0.04%/0.004-0.043%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to -0.3dB/-1.5dB/-9.1dB
Digital jitter (48kHz/24-bit data)	<20psec
Power consumption	Battery-powered device
Dimensions (WHD) / Weight	67x19x95mm / 127g



Headphone amplifier. Rated at 4W into 8ohm
Made by: Luxman Corp., Japan
Supplied by: IAG (International Audio Group), UK
Telephone: 01480 447700
Web: www.iaguk.com; www.luxman.com
Price: £4000

AUDIO FILE



Luxman P-750u

This may just be the go-to unit if you're 1) crazy for cans, 2) use various models and 3) love added fine-tuning control. At £4000, the Luxman P-750u can take on all-comers through its mix of purism and completeness.

By eschewing a DAC and delivering what is essentially an analogue device, Luxman has, for all intents and purposes, produced what by any definition is 'an integrated amp minus speaker terminals'. In fact our lab tests showed it could outgun certain 300B-equipped single-ended triode amplifiers feeding horns!

It's the completeness of the design that will make it a guaranteed short-lister for the hard-core. While resembling the earlier P-700u, differences here are largely evolutionary. One of the 1/4in sockets has been replaced with a balanced output for headphones

'The Luxman P-750u is like a Krell Class-A 200-watter for the head'

wired with a single 4-pin XLR, while inside Luxman has bolstered the power supply for the pre-driver stage and its proprietary 'Only Distortion Negative Feedback' (ODNF) circuit has been upgraded.

As with the '700, across the front are a blue on/off LED, a power on/off pushbutton, and input selector for its one single-ended and two balanced connections. There's a throughput selector for bypassing the unit to send a line source straight to an amp, and the array

of headphone outputs. The output button scrolls through these while alongside the sockets can be found a sensitivity selector for 0dB, -6dB and -12dB. Some of our ultra-hungry cans sounded subjectively better on the high setting and lower with the easy-to-drive models.

The rotary volume control does not operate on the feed to the line outputs when using the 'through out' bypass mode. Instead, you should set the volume control to zero when using this mode.

LOADS OF AIR

Immediately apparent was an open, delightfully out-of-the-head soundstage. As our 'phones included both sealed and open-backed on-ear, over-ear and circumaural types, it was a joy to hear this consistently from model to model.

We started with some raucous head-banging from the Eagles Of Death Metal, revelling in 'Poor Doggie' [Death By Sexy...]; Downtown Music]. The track's drum opening sounded as cavernous via cans as it does through massive speakers, and, indeed, the transparency and spread afforded by the Luxman P-750u allowed the thwacks to resonate with loads of air.

When things turned folksy on 'Bag O'Miracles', the spatial changes were uncanny, with off-mic calls seeming to come from behind us. In the middle, we heard whistling as real as if the performer was in the room while the handclapping had an equally natural sound.

Having immediately sated a need for scale, we turned to *The Mills Brothers Collection 1931-1952*

ABOVE: Three headphones can be left *in situ*, chosen in sequence via a fascia push-button. Other controls include power-on, source select, bypass, sensitivity setting, balance and level

[Acrobat] and (in 1944 mono) 'You Always Hurt The One You Love'. This was perfectly placed dead centre, affording an opportunity to test the sweep of the balance control – this feature will be a boon for older listeners who might be down a few dB in one ear.

Each of the brothers' voices could be discerned with eye-squinting, fist-clenching concentration. As this track was recorded with just a lone guitar and bass, 'Please Don't Talk About Me When I'm Gone', with the group backed by the Tommy Dorsey Orchestra, exploited far more of the P-750u's skill set.

With woodwinds and trumpet so sweet that the net effect of backing the quartet's honeyed vocals was the creation of a blanket of sound, even the more crisp of our headphones sounded less aggressive. The purity of this recording also made it a prime enabler for evaluating the effect of the sensitivity adjustments.

On Roger Daltrey's latest, *As Long As I Have You* [Polydor], 'How Far' sounded truly epic, bursting with fabulous, woody, twangy guitar sounds, rich, deep bass and slamming percussion. Here the power of the Luxman P-750u delivered dynamic contrasts and attack that would have you thinking that you'd found a circa-1985 Krell Class-A 200-watter for the head. My goodness: this unit is so special!

VERDICT

This heavyweight unit is one of the finest and most transparent amps we've used, regardless of type. You might fancy an extra hint of valve-like warmth, however, Luxman's coolness has its own appeal. ☺

HI-FI NEWS SPECIFICATIONS

Maximum output (<1% THD into 47kohm)	8000mV
Maximum power output (<1% THD)	2.67W/25ohm / 7.33W/8ohm
Output Impedance (20Hz-20kHz)	400-500mohm
A-wtd S/N ratio (re. 0dBV)	95.3dB
Distortion (20Hz-20kHz, re. 10mW/0dBV)	0.0005-0.009%/0.0005-0.009%
Frequency resp. (20Hz-20kHz/100kHz)	+0.0dB to -0.21dB/-4.2dB
Stereo separation (20Hz-20kHz)	71-102dB
Power consumption	27W
Dimensions (WHD) / Weight	440x92x400mm / 13.3kg

AUDIO FILE

Headphone preamplifier with battery PSU option
 Made by: Metaxas & Sins, Netherlands
 Supplied by: The Audiophiles Clinic, UK
 Telephone: 07795 845403
 Web: www.metaxas.com; www.audiophilesclinic.co.uk
 Price: £6000



Metaxas Marquis

We saw a selection of something like 1500 headphone products at one Tokyo store this year but, unsurprisingly, Metaxas' £6000 Marquis 'Memento Mori' preamplifier wasn't among them.

For this model Metaxas has eschewed a built-in DAC, nor does it accommodate two sets of cans – the Marquis is thus a solo pleasure. Its single most obvious feature is that it looks like a skull of roughly half-scale, standing 250mm high on its 50mm-thick, 150mm diameter base. Its 'eyes' are level meters that light up red, while our review sample was finished in a gold/yellow anodised colour with red knobs and hardware, though other colour choices include purple, silver, or red.

Although it boasts performance worthy of the best headphones, this is probably secondary for a certain type of buyer. The Marquis is without question an *objet d'art*, so cool, so desirable that there are people who will buy one even if they never listen to it.

'The feel is so vivid the track sounded like a new recording'

Sculpture aside, the Marquis does what a fine headphone amp is supposed to do. It places its single, locking, 6.35mm (1/4in) socket on its front at the skull's 'mouth', sited below and between the source selector and the volume control (a 4-pin LEMO option is also offered).

At the back are a pair of stereo ins and a preamp out on gold-plated RCA phono along with an IEC mains input and on/off rocker.

A RICHER RIDE

We had an opportunity to see the innards, with the skull opened up to reveal tidy motherboards with multi-pin computer-style connectors. Thus it would appear you can order your Marquis optimised for high or low impedance cans.

You'd probably only use the Marquis as a preamp to drive a secondary system – its sound for this is super quiet, specifically lean and detailed. Headphone performance sounds far richer down below. With Mobile Fidelity's three-disc box set of Billy Joel's *Greatest Hits Volumes I & II*, the bottom end in 'Just The Way You Are' sounded really full and nicely extended.

'Piano Man', too, was a delight and when Joel reaches the stage where 'The microphone smells like a beer...' you feel the full essence of the wee hours in a bar. If you've never felt the alienation, desolation or loneliness of, say, the diners in Edward Hopper's 'Nighthawks', this will paint it inside your cranium.

Given the Marquis's way with detail, we turned to the 2017 remastering of The Beatles' *Sgt Pepper's Lonely Hearts Club Band* [Apple], where Ringo Starr's drumming and Paul McCartney's bass playing are given greater audible prominence than before.

The crispness and dryness of the former, especially the snare and cymbals, matched slickly with the fluidity of the latter, Macca's bass so sumptuous and 'virtuosic' that it makes a mockery of most LPs by bass soloists. Everything was spaced just-so in one's head, and it proved revelatory even after digesting the sound via loudspeakers. (Even with closed-back models, the Marquis proved particularly adept at going beyond the out-of-head placing at the extremities of the soundstage.)

But it was 'Lucy In The Sky With Diamonds' that took our breath away. The stellar bass and drums continued in equal measure, but the upper frequencies were stretched by the delicate tingling of the harpsichord/vibraphone that opens the piece. 'Shimmer' is the only word we can think of to describe it.

And with 'When I'm Sixty-Four'. the woodwinds, piano and vocals floated in the head, bass and drums overlaid – yet with everything crystal clear, distinct, discernible.



ABOVE: Rotaries cater for input selection and volume while a 6.35mm headphone socket forms the Marquis's 'mouth'

The overall feel is so coherent and so vivid that it sounded more like an altogether new recording.

VERDICT

The Metaxas Marquis is a superior headphone amp with plenty of delicacy, power and grip. But you need to look at it as 'functional sculpture'. You'd buy it because you wanted it – not because you needed it. And we want it. ☺

HI-FI NEWS SPECIFICATIONS

Maximum output (<1% THD into 47kohm)	4700mV
Max. power output (<1% THD into 25ohm)	135mW
Output Impedance (20Hz-20kHz)	6-8ohm (pre, 3.2kohm)
A-wtd S/N ratio (re. 0dBV)	86.5dB
Distortion (20Hz-20kHz, re. 10mW/0dBV)	0.43-2.0% / 0.013-0.05%
Frequency resp. (20Hz-20kHz/100kHz)	-11.5dB to -0.1/+0.06dB
Stereo separation (20Hz-20kHz)	69-94dB
Power consumption	3W
Dimensions (WHD) / Weight	150x250x170mm / 3.6kg



audioquest®

AUDIO FILE

Integrated 'digital' amplifier. Rated at 150W/8ohm
 Made by: NAD Electronics International, Canada
 Supplied by: Sevenoaks Sound and Vision, UK
 Telephone: 01732 459555
 Web: <http://nadelectronics.com>; www.sevenoakssoundandvision.co.uk
 Price: £3499



NAD M32

Only a volume control sets this unit apart from the company's similarly styled M22 v2 power amp. The front panel tells you, at least when powered up, that this is a 'Direct Digital DAC/Amplifier'.

Given the simplicity of the fascia – apart from the illuminated logo, display and one knob, there's just a headphone socket, driven from its own discrete amp – you might expect that single control to be some kind of cunning multifunctional 'twist and push' device. No: it's simply a volume knob and no more, with all the

'Get near the 0dB mark here and you're already beyond "exciting" levels'

other functions handled by the touch-panel display, or the remote.

However, this is no stripped-out minimalist amp, but rather a very complex and capable device, with a wide range of settings. It uses the company's own DirectDigital technology, which it shorthands as 'A DAC that amplifies'. This means that while the M32 has both digital and (three) analogue inputs, the latter are digitised at the outset.

A set-up menu option allows sample rate selection for the A-to-D converter, with a choice of 48kHz, 96kHz or 192kHz – although the MM phono stage is fixed. After some experimentation with the

settings, we'd probably settle for the highest one whenever possible, as it seemed to give the crispest, cleanest treble, and the best sense of air in the sound.

Besides those three analogue inputs, the NAD M32 has two coaxial, two optical and a single AES/EBU digital input, along with an asynchronous USB Type B socket for computer connection. And as well as two sets of speaker outputs, the amplifier also has a pair of configurable analogue outs.

That's just one element of a very flexible menu system, even extending to setting the whole amp to a predetermined fixed gain. The line inputs can be set to variable or fixed level. The M32 has defeatable tone and balance controls, speaker impedance compensation, a mono switch, polarity inversion and even the ability to switch speakers left to right!

So the M32 is a highly flexible amp by any standards, but it also has four expansion slots in the rear panel to add functionality. Modules include the £399 MDC DD-BluOS 2, which allows the amp to integrate into a Bluesound multiroom system, complete with network music playback and a USB audio input.

DRAMATIC DYNAMICS

The M32 sounds big-boned and rich without ever lacking in agility, and provided you don't push the amp too far it always sounds clean, open

and fast, having excellent rendition of fine detail. And this holds true with even the largest and most dramatic of dynamic swings.

It does, however, have one odd volume characteristic. As a digital amp it 'clips' at 0.0dB – the Spinal Tap 'goes to 11' thing is really not recommended here, although by the time you get anywhere near the 0dB mark you're already well up into 'exciting' levels and beyond.

With the lush orchestrations and electronica of Deadmau5's *Where's The Drop?* [Mau5trap] the power of the M32 was much in evidence in the big, rich bass, while the cleanliness of the string tone showed the openness and detail here.

With more direct rhythm-driven music, such as John Mayall's 1990 album *A Sense Of Place* [Island] the warmth of the M32 didn't stop it powering the bass and drums along with real impetus while bringing out the character of the lead guitar and vocals. Similarly, with jazzers Lake Street Dive's new set *Free Yourself Up* [Nonesuch] the level of detail on offer served this ultra-precise recording very well indeed, keeping the rhythm section good 'n' tight while allowing Rachael Price's remarkable voice full rein. The lushness of 'Musta Been Something' was simply lovely, while the amp wasn't caught out when the easy mood of 'Shame, Shame, Shame' kicked down a gear and went for it.

ABOVE: Aside from the rotary volume control and touch-sensitive on/standby button the flexible M32 is configured and 'driven' via the remote handset or its touchscreen TFT display

VERDICT

The M32 is a hugely impressive integrated amplifier, with plenty of power allied to real control and grip, driving hard without losing the plot. Add the BluOS module and you have a superb all-in-one network/computer music solution. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	190W / 190W
Dynamic power (<1% THD, 8/4/2/1ohm)	200W / 400W / 433W / 167W
Output impedance (20Hz-20kHz)	0.005–0.20ohm
Freq. resp. (20Hz-20kHz, 45kHz, 90kHz)	-0.2 to +0.1dB / +2.9dB / -7.8dB
Digital jitter (48kHz/96kHz, 0dBW)	262psec / 300psec
A-wtd S/N ratio (re. 0dBW/0dBFS)	84.8dB (Analogue) / 107.2dB (Dig)
Dist. (20Hz-20kHz; 0dBW/-20dBFS)	0.009–0.27% / 0.002–0.22%
Power consumption (idle/rated o/p)	37W / 400W (4W standby)
Dimensions (WHD) / Weight	435x133x396mm / 9.8kg



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AUDIO FILE

Integrated amp with network/USB inputs. Rated at 300W/8ohm
 Made by: Hegel Music Systems AS, Oslo, Norway
 Supplied by: Hegel Music Systems AS
 Telephone: +47 22 605660
 Web: www.hegel.com
 Price: £9000



Hegel Reference H590

○ slo-based Hegel describes its new Reference H590 integrated amp as 'a master at musicality... a commander of any set of speakers'. Well, the new £9k arrival is certainly something of a monster, in both size and weight, while delivering over 300W per channel.

It doesn't take long to realise there's some very special stuff going on behind its tasteful, minimal looks. Company founder Bent Holter says the DAC incorporated here is 'the best we have ever designed', while the amp features 'massive

'The drums sounded like controlled cannon fire, just as they should'

upgrades all over the digital domain'. The spec runs to MQA decoding and rendering, Spotify Connect and a Hegel-customised spin on Apple AirPlay, not to mention DSD256 capability via a computer connected to a USB port.

There are also three optical and two coaxial digital ins, while the analogue inputs run to two sets of balanced line-ins and three on RCAs. Fixed and variable RCA outs sit alongside the single set of speaker terminals, and features extend to a lockable maximum output level, to avoid amp damage, a unity gain option allowing the amp to be used with a home theatre receiver or processor. The amp has also been

designed to be Internet-upgradable at a future date.

The preamp section employs hand-matched transistor pairs and a custom-designed volume attenuator, while the power amp uses a dozen high-speed output transistors for each channel. It also boasts separately regulated power supplies for input, voltage gain and current gain stages.

A LIGHT TOUCH

If you expect all that power means the H590 handles music with all the finesse of a nuclear-powered

icebreaker pounding its way through the floes, you'll be a very long way from the reality. Yes, this amp will drive hard but it has a remarkably light and precise touch, albeit allied to devastating dynamic ability when the music requires it.

Not so demanding on that dynamic slam is Alison Krauss and Union Station's *Live* set [Rounder], where the amp delights with the warmth of the live ambience and the excellent clarity of the harmonies, not to mention Krauss's voice. The acoustic instruments have a fine sense of finger on string, the upright bass is deep and powerful, and the snappy playing of 'Choctaw Hayride' has an inescapable, foot-tapping swing.

Keep the Texas vibe going with some vintage ZZ Top, and the H590 does its thing in swaggering style, shifting gear from plaintive blues

to downhome boogie with 'Brown Sugar' on the band's first album [*The Complete Studio Albums 1970-90*; Warner/Rhino, 192kHz/24-bit]. The guitars are already powering hard on this early style-setting package, and the rhythm section is absolutely unstoppable.

Warming to the seemingly limitless dynamics of the amp suggested playing The Who's explosive 'Won't Get Fooled Again' [*Who's Next*; Polydor, DSD64 download], where the lead guitar and vocals had striking clarity. Every note The Ox grumbled out was readily audible and, of course, the drums were like controlled cannon fire, just as they should be.

Switching between the H590 in streaming mode and fed via both digital and analogue inputs from a Naim NDS/555PR DR network player proved there was really nothing in it. Beyond a slightly greater sense of restraint and precision from the Norwegian amp's digital section.

This was perhaps best in evidence with the delicacy of Xiayin Wang's reading of Rachmaninov's *Études-Tableaux* [Chandos] at 96kHz/24-bit, where the extra detail in the shaping of each note via the streaming H590 was traded off against a bit more fluidity and flow from the NDS. That this amplifier does all it does, and can still rival a digital player ticketed at more than its £9000 price, is remarkable.

ABOVE: The H590 is an object lesson in Hegel's trademark simplicity, albeit writ large. Source and volume controls join a headphone socket, and a power button hidden under the fascia

VERDICT

Big, powerful and admittedly expensive, Hegel's flagship is anything but brutish, combining clout in reserve with a delicacy and refinement you might not expect. It's certainly high-end and boasts an excellent digital platform. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	310W / 590W
Dynamic power (<1% THD, 8/4/2/1ohm)	325W / 640W / 1.24kW / 2.29kW
Output impedance (20Hz-20kHz)	0.013-0.045ohm (555ohm, pre)
Freq. resp. (20Hz-20kHz/100kHz)	+0.0 to -0.15dB/-1.8dB
Digital jitter (S/PDIF at 48kHz/96kHz)	15psec / <10psec
A-wtd S/N ratio (re. OdBW/0dBFS)	90.1dB (Analogue) / 101.4dB (Dig)
Dist. (20Hz-20kHz; OdBW/-20dBFS)	0.002-0.0053%/0.0001-0.0002%
Power consumption (idle/rated o/p)	105W / 1015W (1W standby)
Dimensions (WHD) / Weight	430x171x445mm / 22kg



Integrated amplifier. Rated at 120W/8ohm

Made by: Luxman Corp., Japan

Supplied by: IAG (International Audio Group), UK

Telephone: 01480 447700

Web: www.iaguk.com; www.luxman.com

Price: £8500

**AUDIO
FILE**


Luxman L-509X

There's no shortage of big-money integrated amplifiers out there, and launching the £8500 L-509X into this arena sees Luxman facing rivalry not only from other manufacturers, but also from within, the company offering a handful of integrateds similar at first glance, distinguished only by the colour of their meter illumination and price.

This is a very simple amplifier, with none of that built-in DAC

section, designed for optimal drive of the power amp stages.

The output stage itself uses a push-pull configuration equivalent to that in the company's M-700u power amp [HFN Sep '15], and outputs through 'high conductivity' copper alloy terminals. The switched connection to the output stages is via high capacity/low resistance parallel relays and thick copper wiring to maintain the claimed high damping factor. No fewer than six independently rectified/regulated PSUs are fed from separate windings, while the substantial 600VA transformer, Luxman says, is a 'high inertia' design 'that does not shake even under load fluctuations'.



SWEET AND EASY

The immediate impression is of an amplifier that's sweet, refined and entirely at ease. And that's true with whatever the music you choose to play through it, and whichever source component you opt to use.

It's not quite a 'take no prisoners' ultra-revealing amp of the brash and bright school, though the amount of information it delivers is frequently breathtaking. And it never leaves the listener with the sense that something's missing.

From the growl of orchestral double-basses in a spot of Wagner from the SACD by Iván Fischer and his Budapest Festival Orchestra

[Channel Classics], all the way through to the snap and punch of Kyle Eastwood's instruments on *In Transit* [Jazz Village], this is an amp fully able to convey instrumental textures and techniques.

What's more, while the brass duo leading several of the Eastwood tracks can sound overly aggressive via some amps, the L-509X conveys them in fluid, attractive fashion without blunting the metallic edge of the sound.

Even with a really dense mix, such as some of those on Squeeze's *The Knowledge* [Love Records], the L-509X manages the impressive task of delivering a big, majestic wash of sound while still allowing the usual masterful lyrics and the individual instruments due clarity.

It's a sound that even the wilful mayhem of the latest Sparks set, *Hippopotamus* [BMG], can't catch out. Yes, the sound the Mael brothers deliver is an exercise in studied chaos, but even those falsetto-ish vocals are clearly audible in a track like 'So Tell Me Mrs Lincoln', which is every bit as bonkers as the title suggests. It may not be quite what the Luxman engineers had in mind when they designed the L-509X but the fact it works so well shows that its amplifier has wide-ranging capabilities beyond the breathy jazz of so many hi-fi demonstrations.

VERDICT

Big, rich, sweet and totally controlled: sounds like something of a soft listen, doesn't it? Yet the truth is that the L-509X is all of the above in a good way, and none of those in a bad. It simply conveys the music in a manner that always seems exactly as it should. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	155W / 255W
Dynamic power (<1% THD, 8/4/2/1ohm)	183W / 342W / 507W / 278W
Output impedance (20Hz–20kHz)	0.021–0.052ohm
Freq. resp. (20Hz–20kHz/100kHz)	+0.0dB to –0.28dB/-4.55dB
Input sensitivity (for OdBW/120W)	19mV / 212mV (balanced)
A-wtd S/N ratio (re. OdBW/120W)	85.9dB / 106.7dB
Distortion (20Hz–20kHz, 10W/8ohm)	0.0024–0.033%
Power consumption (idle/Rated o/p)	102W / 440W (2W standby)
Dimensions (WHD) / Weight	440x103x463mm / 29.3kg

AUDIO FILE

Integrated DAC/amplifier. Rated at 300W/8/4/2ohm
 Made by: McIntosh Labs, Binghamton, NY, USA
 Supplied by: Jordan Acoustics, Bournemouth
 Telephone: 01202 911886
 Web: www.mcintoshlabs.com; www.jordanacoustics.co.uk
 Price: £12,995



McIntosh MA9000

If ever a product deserved the title, this is the 'Big Mac'. After all, it is huge in every respect, from its sheer bulk to the weight and £12,995 price. It's also the most powerful McIntosh integrated amplifier to date, conservatively rated at 300W.

A key claim to fame, and a major contributor to the MA9000's bulk, is the 'Audio Autoformer' employed at the amplifier's output. While transformers are typically used to match the high output impedance of a tube circuit, and deliver useful

band equaliser and, separately, the modular digital section which may be swapped out to accommodate subsequent changes in technology.

Two coaxial and two optical digital inputs are currently provided, along with a USB-B 'computer audio' input, plus a whole load of other connections for custom installation applications. The digital section is based round a popular 32-bit ESS DAC and able to handle up to 192kHz/24-bit via the conventional digital inputs, or 384kHz/32-bit PCM, plus DXD and DSD256 via USB. Meanwhile, the analogue department affords two sets of balanced XLR ins, six line-ins on RCAs, and separate MC and MM phono inputs.

Jumper bars allow the preamp and power amp sections to be separated if required. There's a fixed line output and a 'home theatre' unity gain bypass option and a single set of speaker outputs for each channel, with 2ohm, 4ohm and 8ohm taps. Front panel switches can be used to turn on or off the amp's speaker and preamp analogue outputs.

Finally there's a fascia headphone socket which uses McIntosh's Headphone Crossfeed Director 'to attempt to give a more speaker-like sound' by allowing some bleed between left and right channels.

'The MA9000 showed itself capable of both punch and subtlety'

power, to the lower (8, 4ohm, etc) impedance of a loudspeaker, McIntosh is using its own multifilar-wound transformers here to manage the power of its solid-state amp into any speaker without fear of overload or overheating.

The styling you'll either find retro-cool, with the classic blue McIntosh meters prominent in the glass-fronted panel, or relentlessly in your face, from the massive 'grab handles' to the range of switches and controls across the fascia. Also unusual is the fully analogue eight-

Along with many more set-up functions – input trims, renaming, turning off unused inputs, etc – this is adjusted using the amplifier's menu system.

DRAMATIC PUNCH

Our initial impressions of the MA9000 demonstrated just how important it is to match the autoformer tap to your particular loudspeaker – our B&W 800 D3s [HFN Oct '16] sounding so much more vibrant via the 8ohm setting than the 4ohm output.

While the MA9000 remained on the big, rich and bold side of neutral, a vivid energy was now injected back into drums and basses, giving them timing and definition. The soundstaging tightened up too, taking on focus and three-dimensionality, as the ambience and growl flooded back into the mighty RFH organ from Emerson, Lake & Palmer's 'The Three Fates' [ELP; Atlantic].

That done, we enjoyed a wide range of recordings, also discovering the analogue equaliser to be usefully subtle in its operation. The MA9000 showed itself capable of dramatic punch with Britten's 'Sea Interludes' from Peter Grimes [Decca], and extreme subtlety in Lake Street Dive's 'I Want You Back', from Fun Machine [Signature Sounds], with excellent shaping of bass, percussion, trumpet and voice.

VERDICT

The MA9000 reveals itself to be a very serious amp indeed – from effortless power delivery and control to its cunningly-concealed flexibility of set-up and operation. It has the performance to back up its considerable size and mass. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4/2/1ohm)	420W / 415W
Dynamic power (<1% THD, 8/4/2/1ohm)	575W / 545W / 560W / 935W
Output impedance (20Hz-20kHz)	0.152–0.195ohm (150ohm, pre)
Freq. resp. (20Hz-20kHz/100kHz)	-0.28 to -0.25dB/-3.35dB
Digital jitter (S/PDIF at 48kHz/96kHz)	90psec / 65psec
A-wtd S/N ratio (re. OdBW/0dBFS)	88.1dB (Analogue) / 110.3dB (Dig)
Dist. (20Hz-20kHz; OdBW/-20dBFS)	0.0004–0.004% / 0.0009–0.003%
Power consumption (idle/rated o/p)	61W / 1180W (1W standby)
Dimensions (WHD) / Weight	445x240x559mm / 45.8kg



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AUDIO FILE

Media hub/Integrated amplifier. Rated at 150W/8ohm
Made by: Audis Micromega, Boissy-Saint-Léger, France
Supplied by: Micromega, France
Telephone: +33 (0) 14382 6129
Web: www.micromega.com
Price: £5390-£6190



Micromega M-150

How has Micromega managed to cram standard Class A/B power stages, rated at 150W/8ohm, into an enclosure for its M-150 standing less than 6cm tall complete with its spiked feet? Well, a lot of it is down to clever heat-management, with a central heatpipe for convection cooling aided by a small, silent fan under thermostatic control.

Hidden away under the rear overhang of the casework, which tidies all the messy wiring away from sight, you find an extended range of both analogue and digital inputs. The £5390 M-150 has both RCA and balanced XLR connections, an MM/MC phono stage and balanced/RCA preouts and a mono subwoofer output. Digital provision

There's also a novel headphone output complete with processing to create a binaural effect from conventional music sources, and built-in room-correction/equalisation, for which a plug-in measuring mic is provided. Micromega says the system 'detects the sound irregularities of your room, and attenuates them for a balanced and accurate response'.

The anodised aluminium casework comes in either silver-grey or black, or at a £600/£800 premium in any colour you prefer.

SPRINGING TO LIFE

Once the M-150 has made its room-correction measurements, you can begin listening. Whether with vinyl or other sources connected via analogue or the battery of digital inputs, the amp demonstrates both generous detail and a solid grip on the speakers, making a wide range of music spring to life in a highly impressive manner.

Playing a recent Vivaldi 'Four Seasons', with Rachel Podger and Brecon Baroque, in DSD [Channel Classics/ NativeDSD Music], the M-150 relished a recording as sparkling as the performances, its tight and beautifully integrated presentation delivering a sound as fast as it is clean, and as weighty as it is agile and dynamic.

This is an amplifier to please those who seek to hear every detail in a recording, but just as relevant to listeners wanting no more than to immerse themselves in a performance and appreciate

'Micromega's M-150 is as fast as it is clean, and as weighty as it is agile'

starts with coax and optical S/PDIF and AES/EBU plus USBs – Type A ports for storage media and asynchronous Type B for a computer connection. There's also a pair of HDMI sockets wired to accommodate the I²S format (designed 'to handle future extensions' says the company).

A LAN port facilitates control via a dedicated app and supports UPnP/DLNA streaming while its wireless connection handles Bluetooth 4.0 with aptX. The M-150 can handle formats up to 768kHz/32-bit and DSD up to DSD256/11.2MHz.

the artistry. Play a set with plenty of taut bass and superbly recorded instruments, such as Béla Fleck and The Flecktones' *Live Art* [Warner], and the M-150 is as convincing in the way it conjures up the live atmosphere as it is when delineating the snap and slap of Victor Wooten's bass strings on his extraordinary solo improvisation segueing into 'Amazing Grace'.

And with Fleck's masterly medley of 'Early Reflection', a little Bach and 'The Ballad Of Jed Clampett' (yes, really!) the Micromega M-150 is able to show just how nimbly it can handle lightning picking and deliver it to fine effect.

So this is an amplifier with real all-round ability. Load up ZZ Top's 4CD *Chrome, Smoke & B-B-Q* [Warner] and it's as adept with the stripped-down blues of some of the earlier tracks as it is chugging out the Texas boogie of 'Cheap Sunglasses' or 'I'm Bad, I'm Nationwide'. What's more, this slimline amp will play as hard as you want without losing its composure.

Switch swiftly to Martin Helmchen's masterly reading of Beethoven's *Diabelli Variations* [Alpha], and his wonderfully light touch on a Steinway is all too apparent, as is the sense of the pianoforte standing in a real space.

VERDICT

Its styling and provenance may suggest comparisons with that other French amplifier range, but the M-150 is very much *une autre paire de manches*, thanks to its distinct technology and facilities. It's remarkably capable, flexible and well-sorted, the room correction is convincing, and the performance similarly impressive. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	167W / 315W
Dynamic power (<1% THD, 8/4/2/1ohm)	175W / 335W / 565W / 690W
Output impedance (20Hz-20kHz)	0.043–0.095ohm (315ohm, pre)
Freq. resp. (20Hz-20kHz/40kHz)	+0.0 to -0.55dB/-2.0dB (Analogue)
Distortion (20Hz-20kHz, 0dBFS/0dBW)	0.0002–0.0002%/0.0006–0.017%
A-wtd S/N ratio (re. 0dBFS/0dBW)	107.1dB (Dig) / 83.1dB (Analogue)
Digital jitter (48kHz/96kHz)	40psec / 25psec
Power consumption (idle/rated o/p)	40W / 480W (3W, standby)
Dimensions (WHD / Weight)	430x56x350mm / 9.3kg



Integrated DAC/amplifier. Rated at 250W/8ohm
Made by: Perreaux Industries Ltd, New Zealand
Supplied by: Elite Audio (Distribution) Ltd, London
Telephone: 0203 397 1119
Web: www.perreaux.com; www.eliteaudiouk.com
Price: £6895-£8820

AUDIO
FILE



Perreaux Eloquence 255i

Side by side, you'd be forgiven for seeing no changes between the Perreaux Eloquence 255i integrated and the earlier 250i [HFN Aug '12]. After all, same rotary, same display, same button count.

What will up the £6895 price of the new unit, billed as the 'world's most powerful integrated amplifier', are the two modules necessary for anyone using other than just line-level sources. The new DAC module adds £1385 to the price, while

is a 3.5mm stereo auxiliary *input*. Across the front, as before with the 250i, the super-clean panel contains a massive volume rotary, described by Perreaux as 'a 3rd-generation microprocessor-controlled analogue device'. To its right is the display, crucial for its menu usage, above a row of press-buttons for menu navigation and all other functions save on/off. A fascia button takes the 255i in or out of standby.

It's worth noting that *two* remotes are provided – a small, simplified handset for the basics and another for full control, menu access, synergy with other Perreaux models and the like. So totally customisable is this unit that you'll need an evening just to set it up.

IT'S AN ANIMAL!

Holy Cow! This thing is an animal... the 255i is a powerhouse to reckon with, whether or not it's the most bad-ass unit currently available. After a quick burst of Crabby Appleton's 'Go Back' from their eponymous debut [Man In The Moon], just to shake the rafters, we got mono operation out of the way with Jackie Wilson With Billy Ward & The Dominoes [Varèse Sarabande].

Using it primarily to assess focus, all was rock solid in the centre. The 255i sounded deliciously sweet with

ABOVE: A CPU governs input selection and labelling, volume trim and ramp rate, balance trim and so much more – all revealed on the back-lit display that hosts Perreaux's menu

this early '50s vocal group material via CD. But what made our day was the phono stage, which had a London Gold sounding more silky and refined than we have heard it via solid-state. The Perreaux 255i made the already shimmering presence of 'Cherry Pink And Apple Blossom White', from Perez Prado's *Big Hits By Prado* [RCA 'Living Stereo'], just more vivid and natural.

But back to Crabby Appleton. Our reason for concentrating on this hard rock epic is to support the manufacturer's mission statement in creating such a powerful beast. This is not the world's only integrated amp with phono stage and DAC, but Perreux's power claims may be the deal maker for many purchasers.

Leaving aside the need for power if one has hungry speakers, the other is to rock *with vigour*. Yes, we are talking maximum SPLs without compression or clipping. And as 'Go Back' lends itself to ear-bleeding levels and the playing of air *drums* (as much as air guitar), there was no way we could resist cranking it up. The only way we can describe the sheer mass of air pushing at us is this: we gave up for fear of destroying our speakers long before reaching the limits of the 255i.

There is too much to cover when describing this amp. Its digital stages are almost a match for the best standalone DACs circa £2000, and there's unlikely to be a pick-up the phono section can't match. And the well of power is very deep!

VERDICT

Like its predecessor, this is an amp that does whatever you ask of it, from delicate music to rave insanity, with grace and eloquence. It's a helluva lot of amp for the dosh. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	435W / 680W
Dynamic power (<1% THD, 8/4/2/1ohm)	600W / 1137W / 1438W / 610W
Output impedance (20Hz–20kHz)	0.013–0.065ohm (210ohm, pre)
Freq. resp. (20Hz–20kHz/100kHz)	+0.0 to –0.1dB/–1.3dB
Digital jitter (S/PDIF at 48kHz/96kHz)	1315psec / 790psec
A-wtd S/N ratio (re. 0dBW/0dBFS)	76.5dB (Analogue) / 100.1dB (Dig)
Dist. (20Hz–20kHz; 0dBW–20dBFS)	0.0027–0.009%/0.0003–0.0017%
Power consumption (idle/rated o/p)	84W / 1030W (1W standby)
Dimensions (WHD) / Weight	426x149x344mm / 25kg

AUDIO FILE

Integrated amplifier/DAC with MM input. Rated at 40W/8ohm
Made by: Onkyo & Pioneer Corp., Osaka, Japan
Supplied by: Pioneer & Onkyo Europe GmbH, Middlesex
Telephone: 0208 836 3500
Web: www.pioneer-audiovisual.co.uk
Price: £400



Pioneer A-40AE

As the champagne corks pop to mark its 80th anniversary, Pioneer has been launching a brand new range of electronics, a line of integrated amplifiers that includes the £400 A-40AE here. Said to have been designed with sound quality uppermost, it comes in a sleek box, with plenty of power – it's conservatively rated 2x40W/8ohm – and five line inputs, MM phono and two digital ins (optical and coax).

Bass and treble controls are also included, along with balance and a 'Direct' switch to bypass all of these for optimal sound quality. A fixed

'This is a far gutsier amp than the specs might suggest'

line output is fitted too, to feed external headphone amps, etc.

Pioneer has laid out its brushed aluminium fascia panel in a neat, clean way and the pressed steel casing is of good quality. The alloy volume control knob has a pleasingly silky action, there's a full size (6.35mm) headphone fascia socket and a universal IR remote.

Under the A-40AE's bonnet, Pioneer uses custom ELNA reservoir capacitors in its 'Direct Energy Power Supply'. While not quite as grandiose as the term suggests (Pioneer uses close-coupled PCBs, rather than wires, between the PSU and power transistors), the idea is to get more power to the business end of the amplifier more directly.

It's clear that Pioneer has done a top job on a tight budget and ended up with a good, useable device that's largely vice-free.

TASTE OF HONEY

For us, the standout feature is the amplifier's general air of spaciousness. It's far less reticent sounding than you might anticipate from a product at this price.

Steve Hackett's 'Narnia' [*Please Don't Touch!*; Charisma] came over with surprising scale, and was well able to push out beyond the boundaries of the speakers and impose itself on our listening room.

True, there's not a massive amount of stage depth, but the A-40AE did show a convincing centre image of lead instruments on this track, coming over as far gutsier than its specifications would suggest. Indeed, it will drive mid-sensitive speakers into reasonably-sized rooms with ease.

The A-40AE satisfies with a wide range of music. For example, Randy Crawford's 'You Might Need Somebody' [*Secret Combination*; Warner] is a great soul/funk standard from the late '70s. Here, the amp captured the atmosphere of the recording well, offering a detailed performance with lots of feel to the singer's soaring vocals. This slick Tommy Li Puma production sounded smooth, with just the subtlest taste of honey to its overall tonal balance, which could help to thaw out hard-sounding loudspeakers.

Listen through very revealing speakers and you can tell that the upper midband is slightly 'chrome-

plated' although the relative warmth of the amplifier elsewhere ameliorates this to a good degree. The Randy Crawford track's baseline was thus rounder and richer than it could have been, giving a more sumptuous feel than we expected.

Music ebbed and flowed in a most pleasing way, too, on 'Mad Man Moon' by Genesis [*A Trick Of The Tail*; Virgin]. This fine slice of classic rock can meander when played through the wrong system, but the A-40AE kept our interest fully up with its combination of detail, tonal smoothness and grip.

Via its digital input the A-40AE made a fair fist of Elvis Costello's 'Oliver's Army' [*Armed Forces*; Imp Records], but sounded relatively bland. Heard via the analogue inputs, things were way more transparent and engaging.

There's a subtly sweet haze to music that the A-40AE plays, perhaps making the music sound softer than it really should. Yet as the music bounds along you find yourself simply relaxing into the proceedings and enjoying it. For example, the way it conveyed the fluency of Phil Collins' drumming in the Genesis track was fun.

In the song's middle eight you could really hear how he changed pace and things became more animated. The amplifier's fine detail retrieval meant that the backing keyboard work was carried better than expected.

VERDICT

Pioneer's A-40AE is a great addition to the budget integrated amplifier market – thoroughly engineered it offers versatility in a neat package, and makes an excellent first step up the hi-fi ladder. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	60W / 93W
Dynamic power (<1% THD, 8/4/2/1ohm)	82W / 149W / 220W / 175W
Output impedance (20Hz-20kHz)	0.023–0.12ohm (2.11kohm, pre)
Freq. resp. (20Hz-20kHz/100kHz)	+0.0 to -0.25dB/-2.9dB
Digital jitter (S/PDIF at 48kHz/96kHz)	570psec / 280psec
A-wtd S/N ratio (re. OdBW/0dBFS)	92.5dB (Analogue) / 75.5dB (Dig)
Distortion (20Hz-20kHz; OdBW/0dBFS)	0.039–0.059%/0.0001–0.015%
Power consumption (idle/rated o/p)	18W / 170W (1W standby)
Dimensions (WHD) / Weight	426x149x344mm / 25kg

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Hi-Fi World Dec 2015



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Chord Sarum T Speaker Cable
Hi-Fi World Dec 2017

"Sarum T is a product that demands to be heard, by cables sceptics and advocates alike"

Chord Sarum T Range
Hi-Fi+ May 2017



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AUDIO FILE

Network-attached amplifier/DAC. Rated at 60W/8ohm
Made by: Primare AB, Sweden
Supplied by: Karma-AV Ltd, York
Telephone: 01423 358846
Web: www.primare.net; www.karma-av.co.uk
Price: £1600



Primare I15

Since its inception, Primare has come up with some striking hi-fi products. Founded by Danish designer Bo Christensen, it has always been concerned with making fine sounding, lovely-to-use equipment.

The new (£1600) I15 Prisma is the company's most compact, lifestyle-orientated product. It's a preamp, DAC and power amp built into one small box, and features Primare's own control and connectivity platform – Prisma.

This is a 'one-stop shop' for most people's digital media needs, offering the full spectrum of system management from a single control point. It offers Wi-Fi and Bluetooth streaming, network-attached storage playback plus multi-room/

The busy rear panel has three optical digital inputs, one coaxial and one 3.5mm mini-plug – all running up to 192kHz/24-bit PCM. The USB-B input goes to 384kHz/24-bit and DSD5.6/128. Two screw-in Wi-Fi antennae are accommodated alongside two Ethernet sockets, two pairs of RCA analogue inputs, a set of loudspeaker binding posts and control for system integration.

Despite its relative lack of buttons, the I15 Prisma is highly configurable. And with slimline proportions and a case made from smooth plastic, the remote handset feels good to use too.

SHINE ON

There's something instinctively right about the sound here. Tonally it's smooth and the textures of different instruments are rendered with pleasing realism. And it never runs out of steam at sane levels with sensible loudspeakers.

We tried Simple Minds'

'Chelsea Girl' [Life In A Day; Virgin] by way of example. This recording is a little bright – strident even – and the cranked-up electric organ takes no prisoners. Yet the Prisma I15 rose to the occasion with a civilised rendition that didn't go anywhere near hardness or stridency.

Moving to smoother recordings, and the amplifier's innate quality really began to emerge. For example, with the electronica of Yellow Magic Orchestra's 'Technopolis' [Solid State Survivor; Alfa] the I15 Prisma set up a busy soundstage, packed with musical detail. The result was that the classic '70s keyboards felt tangible, bristling with harmonics that

'The Prisma I15 rose to the occasion with the cranked-up organ'

multi-zone connectivity and control. It also includes 'Chromecast built-in' and is a Roon end point. And all this is managed via the crisp-looking, neatly ordered Prisma application, available on both iOS and Android smartphone platforms.

The I15 Prisma offers a rated output of 60W/8ohm courtesy of two Hypex Class D amplifier modules. There's a fairly heavy-duty, custom-designed switch-mode power supply fitted inside while the DAC section employs the respected AK4490EQ part from AKM. It also plays the usual WAV, AIFF, FLAC, ALAC, MP3, MP4 (AAC), WMA and OGG files, so won't have a problem with legacy computer audio.

contributed to a fittingly sonorous sound from bottom to top.

Meanwhile, John Coltrane's 'In A Sentimental Mood' [Both Directions At Once; Impulse] – a CD rip streamed from a NAS drive – proved a sumptuous, silky pleasure, the I15 Prisma neatly capturing the purity of the lead instrument, a gutsy and occasionally raw sound. It strung the piano and drum work together well, doing a sterling job of controlling this tough track.

Its ability to reveal a deep and wide soundstage was also impressive. Kate Bush's 'Snowflake' [50 Words For Snow; Fish People – 96kHz/24-bit] showed just how well the I15 Prisma deals with spectacular modern hi-res productions, throwing out large amounts of detail while keeping the song's tenderness intact.

The same was largely true via the analogue input, and we relished listening on LP to Manix's 'Hold Dis' [Hypnosis; Reinforced Records]. The I15 gave a brisk and well-ordered presentation that was easily informative enough to dig into and enjoy. Music was effortlessly projected from the loudspeakers, and images were placed precisely with decent depth, too.

Bluetooth also proved to be surprisingly enjoyable, making a fine fist of Abba's jaunty 'Take A Chance On Me' [The Album; Polydor], where the music's inherent charm shone through, the track sounding peppy and jolly, just as it should.

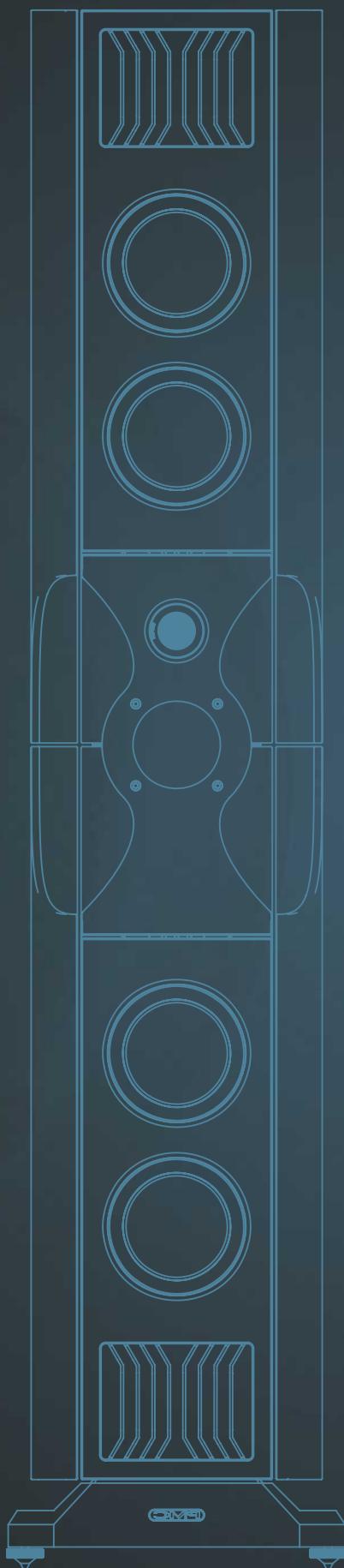
VERDICT

Decidedly not a minimalist product, the Primare I15 Prisma is a lovely listen that packs a wealth of technology into a small box, and does so with considerable élan. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	72W / 140W
Dynamic power (<1% THD, 8/4/2/1ohm)	72W / 140W / 255W / 161W
Output impedance (20Hz–20kHz)	0.058–0.066ohm
Freq. resp. (20Hz–20kHz/90kHz)	+0.0 to –0.12dB/-4.88dB
Distortion (20Hz–20kHz, 0dBFS/0dBW)	0.0012–0.0015%/0.0044–0.002%
A-wtd S/N ratio (re. 0dBFS/0dBW)	89.3dB (Dig) / 87.2dB (Analogue)
Digital Jitter (48kHz/96kHz @ 10W)	175psec / 160psec
Power consumption (idle/rated o/p)	19W / 145W (2W, standby)
Dimensions (WHD / Weight)	350x73x329mm / 6.4kg

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www.pmc-speakers.com/fenestria

Contact us
+44 (0)1767 686300
sales@pmc-speakers.com

AUDIO FILE

Monoblock power amplifier. Rated at 140W/8 & 4ohm
 Made by: Audio Research Corp, Minnesota, USA
 Supplied by: Absolute Sounds Ltd
 Telephone: 0208 971 3909
 Web: www.audiorsearch.com; www.absolutesounds.com
 Price: £28,998 (per pair)



Audio Research REF160M

Audio Research's latest monoblock power amplifier, the £30k per pair REF160M, is one of the biggest departures in the much-lauded series' evolution. Its new look takes its cues from the G-Series, bringing with it a cool oversized meter, but the rest of the amp – available in silver or black – has

Alongside the power on/off button below the clear fascia are buttons for the levels of illumination; tube monitoring, which uses the scales to keep an eye on valve condition; and the Triode/Ultralinear selector.

The unit is rated conservatively at 140W in Ultralinear mode, the power effectively halving in Triode mode, but this drop was not sufficiently audible to be a giveaway unless really hammering the hell out of the units. The sonic differences between the two modes were subtle,

attesting to the coherence of ARC's latest design, but still noteworthy.



SWEET 'N' WOODY
 Simply put, we found the sweetness of the Triode mode beneficial with softer performances, rich orchestral works and those with monumental brass. 'Walkin' My Baby Back Home' from Lionel Hampton's *Silver Vibes* [Columbia], positively glowed with room-filling atmosphere via Triode. It delivered, in all of its glory, golden-age warmth and authenticity. Switching to Ultralinear, a hint of sharpness was

been redeveloped to incorporate features aimed at improving system matching, reliability, ease-of-use and even initial set-up of the amp.

It offers an auto-bias circuit, a switchable choice between Triode or Ultralinear output configurations and the flexibility to use a single-ended or balanced source, operated by a rear toggle. There are 4, 8 and 16ohm speaker load taps and fan speed selection. While the auto-bias technology will accommodate other octal-based tube types, the REF160M was designed and fine-tuned for use with the big KT150s.

added – not unwanted, because it also increased the attack of transients and even uncovered a trace more 'tinkle' from the vibes.

But moving to Toto's 'Africa' and 'Rosanna' from *Toto IV* [Columbia] the REF160Ms in Triode mode delivered the scale and sheer power of these audiophile favourites while, in Ultralinear mode, they imparted that much more 'majesty'.

But it was the elegiac "Willin'" on *Little Feat* [Warner] that gave us our initial glimpse of the REF160M's true greatness. Sweet, woody sounds from the opening acoustic guitar, liquidity on the right from slide guitar, resonant vocals: this screamed 'Triode!', right? Er, no. The listening mode simply made no difference... we were hearing what eight KT150s could do – and it didn't sound just like a brace of mono'd REF75SE amps.

What the REF160M brings to the table is true silence. The added benefit of all that sonic blackness is an improved retrieval of low-level detail and unconstrained dynamic contrasts that revealed the full sound of the acoustic guitar on "Willin'" to even greater effect. Better still was a palpable sensation of a 3D presence.

Even the abysmally recorded, if musically sublime, one-off from Ayers/Cale/Nico/Eno, *June 1, 1974* [Island], was rendered tolerable. The system cut through the murk, the REF160Ms making palatable even the unlistenable. Miraculous!

'What ARC's REF160M brings to the table is a true sonic blackness'

ABOVE: The classic 'rack mount' ARC chassis but with a wide open window – complete with etched metering – reveals the glowing KT150s. The REF160M includes Triode and Ultralinear output modes

been redeveloped to incorporate features aimed at improving system matching, reliability, ease-of-use and even initial set-up of the amp.

It offers an auto-bias circuit, a switchable choice between Triode or Ultralinear output configurations and the flexibility to use a single-ended or balanced source, operated by a rear toggle. There are 4, 8 and 16ohm speaker load taps and fan speed selection. While the auto-bias technology will accommodate other octal-based tube types, the REF160M was designed and fine-tuned for use with the big KT150s.

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	165W / 165W
Dynamic power (<1% THD, 8/4/2/1ohm)	170W / 175W / 200W / 165W
Output impedance (20Hz–20kHz)	0.69–1.51ohm
Freq. resp. (20Hz–20kHz/100kHz)	+0.1dB to -0.7dB/-7.1dB
Input sensitivity (for 0dBW/140W)	179mV / 2105mV (balanced)
A-wtd S/N ratio (re. 0dBW/140W)	100.5dB / 122.0dB
Distortion (20Hz–20kHz, 10W/8ohm)	0.06–0.19%
Power consumption (Idle/Rated o/p)	220W / 380W
Dimensions (WHD) / Weight	438x254x457mm / 25.5kg



Monoblock power amplifier. Rated at 250W/8ohm
Made by: Audio Technology Switzerland S.A.
Supplied by: Padood Ltd, Cambridge, UK
Telephone: 01223 653199
Web: www.nagraaudio.com; www.padood.com
Price (pair): £62,500

AUDIO
FILE

Nagra HD AMP

However busy Nagra's legendary portable tape recorders may have looked, it was always truly a case of form following function. And it's the same with the £62.5k per pair HD AMP, rated at 250W into 8ohm, but Class A up to 30W.

Its uncluttered and functional fascia features Nagra's signature 'Modulometer' and an on/off rotary with Mute position. For this 'High Definition' model Nagra has included, at the rear, an air vent, a choice of RCA or balanced XLR input sockets, and a filter toggle that cuts the DC of incoming signals. Input sensitivity can also be adjusted.

Below that are Nagra's massive speaker terminals, in-and-out sockets for remote triggers and a USB input for servicing. Lastly, the HD AMP is equipped with the larger flat-bladed style of IEC mains socket. Inside, everything is readily accessible, as if designed for on-site

Pet Shop Boys' 'Being Boring' [Behaviour; Parlophone] or carrying the scale and power of Pink Floyd's 'Breathe' [Dark Side Of The Moon; EMI], it remains utterly unflustered.

Turn up the volume, and the soundstage just keeps getting bigger, and an ever greater wealth of detail comes to the fore. At the same time, you begin to appreciate its superlative bass – fast and lithe yet never overblown or flabby. The HD AMP stays absolutely consistent, maintaining the rhythmic flow of a song while its enveloping vibrancy pulls the listener ever closer.

It's the hi-fi equivalent of a floodlit sports stadium – things are presented on a grand scale yet all the players on the ground are clearly visible, well lit without dazzling. But there is never any sense of the sound being overly forensic or artificially sterile.

That said, there's no added romance, for the HD AMP made the likes of Constellation's Taurus Stereo amplifier [HFN Dec '17] – sound just a little euphonic by comparison. Arguably the Taurus Stereo was slightly 'fluffier' and more diffuse – something like a

Monet painting, perhaps?

This combination of speed and scale will surely bring any loudspeaker to life. Yet this isn't achieved by shrillness or brightness, for the Nagra HD AMPs brilliantly capture what is on the recording in the first place without recourse to any artificial edginess. Female voices soon expose hard-sounding amplifiers but Nagra's HD AMPs remain silky-smooth here, projecting the distinct tone, colour and passion of any voice with a compelling immediacy.

VERDICT

The HD AMP is an exceptionally high resolution device, a power amp that will drive 'difficult' speakers to high levels with a sound that's smooth and exquisitely detailed, gentle yet resolutely powerful. For a few lucky owners, it will be a partner for life. Ⓜ

'Nagra's HD AMP is the hi-fi equivalent of a floodlit sports stadium'

servicing, with four primary modules and smaller 'daughters'. Along with the USB comms, this should be an easy amplifier to update should any modifications become available.

Handling the unit's massive weight is made simpler, though not necessarily easier, thanks to the location of the huge 1600VA toroidal in the lower part of the chassis. Its other sub-sections include the main audio PCB hosting Nagra's regular choice of matched power MOSFET devices and a huge board, occupying the lion's share of the available space, that's equipped with no fewer than eight custom-made Mundorf reservoir caps.

THE BIG MATCH

This amplifier is one of the most translucent we have ever heard. Whether scything through the complex soundscape of the



ABOVE: The Nagra HD AMP stands 644mm tall and sports the company's iconic front 'Modulometer' and a rotary for auto, on and mute. Rear speaker terminals are ideal for spades

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	290W / 475W
Dynamic power (<1% THD, 8/4/2/1ohm)	330W / 621W / 1.11kW / 1.65kW
Output imp. (20Hz–20kHz/100kHz)	0.019–0.022ohm / 0.142ohm
Freq. resp. (20Hz–20kHz/100kHz)	+0.0 to -0.6dB / -1.38dB
Input sensitivity (for 0dBW/250W)	65mV / 1030mV (balanced)
A-wtd S/N ratio (re. 0dBW/250W)	84.6dB / 108.6dB
Distortion (20Hz–20kHz, 10W/8ohm)	0.0015–0.044%
Power consump. (idle/rated o/p)	161W / 430W
Dimensions (WHD) / Weight	238x644x542mm / 56kg (each)

AUDIO FILE

Preampl & stereo power amplifier. Rated at 250W/8ohm
 Made by: AVM Audio Video Manufaktur GmbH, Germany
 Supplied by: The Professional Monitor Company Ltd
 Telephone: 01767 686300
 Web: www.avm-audio.com; www.pmc-speakers.com
 Price (pre/power): £9995/£12,450



AVM Ovation PA 8.2/SA 8.2

Sitting at the top of the company's Ovation series, the PA 8.2 preamplifier and SA 8.2 250W/8ohm stereo power amp (£9995/£12,450) both have that 'carved from solid' feel that typifies the entire AVM

'Gaskin's powerful yet pure voice simply zinged into the room'

range, not least due to the use of 8mm anodised aluminium for the casework panels. They are available in 'natural' silver or in a striking black with silver control buttons.

While both units look simple and pretty fuss-free, the clean looks

believe the sophistication within. In the power amp's connection panel there's a single set of high-quality speaker output terminals, plus inputs on RCAs and XLRs, and a 12V trigger socket to allow remote switch-on/standby from the preamp. Or you can set the SA 8.2 to respond to inaudible digital signals sent over the signal cables from the preamp, this allowing the display to be dimmed, for example, in sync with that on the preamp. Or set it to wake when it 'hears' a signal and sleep following no signal.

There are a pair of 120VA toroids in there, plus a brace of 1000VAs for the power output stages, all mounted in a shielded enclosure. Two banks of capacitors, each of

200,000µF, supply the two power amp channels individually.

The PA 8.2 preamp can be customised to suit the user, with a range of add-on modules to expand the input selection and offer a choice between solid-state and valve output stages. The standard £9995 'UK package' sees the PA 8.2 with a line input module, including tone controls, and a valve-powered output module.



SLAM AND DRIVE

With Dave Stewart & Barbara Gaskin's 1991 *Spin* [Broken Records] the AVM amps at once grabbed our attention with the slam and drive of 'Walking The Dog', Gaskin's powerful yet pure voice simply zinging out into the room while the backing snarled and growled behind it. The effortless grunt and clarity of the AVM duo made it possible to listen deep into the mix.

Playing Ella Fitzgerald's 'lost' *Live At The Concertgebouw – 1961* [Fondamenta/Devialet], the amps did a superb job of conveying the vitality and openness of this (mono) recording, and the playfulness of Fitzgerald on top form, and with fine backing from the piano/guitar/bass/drums quartet. Magical.

The AVMs can rock out, too, the onslaught of Joe Satriani's 'Thunder High On The Mountain', from *What Happens Next* [Legacy], roaring out of the speakers, the guitar cutting through the heavy backing.

ABOVE: Both with dimmable readouts, the two boxes look simple and purposeful. Finish options are silver or black

VERDICT

A fine combination of flexibility, solid build and all-out performance, this AVM combo has the grip to drive your speakers with control and conviction. This is high-end audio made civilised and stylish. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	235W / 435W
Dynamic power (<1% THD, 8/4/2/1ohm)	240W / 472W / 913W / 1.45kW
Output imp. (20Hz–20kHz, pre/power)	45ohm / 0.003–0.004ohm
Freq. resp. (20Hz–100kHz, pre/power)	+0.0 to -11.6dB / -0.03 to -2.4dB
Input sensitivity (for 0dBV/0dBW)	148mV (pre) / 97mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	88.0dB (pre) / 88.5dB (power)
Distortion (20Hz–20kHz, 1V/10W)	0.003–0.008% / 0.00014–0.005%
Power consump. (pre/idle/rated o/p)	20W / 105W/640W
Dimensions (WHD Pre/Power)	430x130x355/435x250x420mm

KISEKI 奇跡

the revival of a legend

Herman van den Dungen in 1981 introduced a new cartridge brand called 'Kiseki', and it was an instant hit.

Kiseki Blue, PurpleHeart, BlackHeart, Agate, Lapis Lazuli were the products of legend. Sadly the advent of CD meant cartridge manufacturing had to be wound down, as the world embraced digital.

The interest and growth in vinyl in recent years meant there was a new demand for high quality moving coil cartridges.

In 2013 Kiseki was reintroduced. Kiseki Blue N.S., and Kiseki PurpleHeart N.S., are newly designed Kiseki's. Bringing only the finest components together; each Kiseki is hand assembled ensuring the highest quality.

Made in limited numbers, each Kiseki is a musical masterpiece.

Kiseki, the legend returns.



 symmetry

t: 01727 865488

e: info@symmetry-systems.co.uk

w: www.symmetry-systems.co.uk

AUDIO FILE

Preamplifier & stereo power amplifier. Rated at 250W/8ohm
 Made by: Constellation Audio, Newbury Park, CA, USA
 Supplied by: Absolute Sounds Ltd
 Telephone: 0208 971 3909
 Web: www.constellationaudio.com, www.absolutesounds.com
 Price (pre/power): £22,000/£24,000



Constellation Audio Pictor/Taurus Stereo

Over the past few years this company has been carving out its very own place in the high-end firmament. The Pictor/Taurus Stereo pre/power is in the vanguard of its new Revelation series – the £22k Pictor preamplifier (with outboard

display panel are minor controls dealing with input gain, mute, phase, home theatre bypass and screen set-up. Three balanced XLR and three RCA stereo inputs are offered – and there's no DAC.

The new £24k Taurus Stereo is based on the Inspiration power amp but with a larger, quieter power supply. It shares with the Inspiration Stereo 1.0 twin 125W 'single-ended' power modules working in the company's classic balanced bridged mode and a claimed 250W/8ohm is met here.

This is a big beastie, with striking styling and the company's trademark perforated casework facilitating cooling. Two RCA inputs are fitted alongside four XLRs, one

'Crisp, superbly etched sound flowed forth in a lovely, unforced way'

PSU) is dual mono, featuring Constellation Audio's fully balanced Line Stage Gain Module with ultra-low noise J-FETs, all on suspended circuitboards to counteract vibration. Hidden underneath the

pair connecting the preamp directly to those power amp modules.

ABUNDANT POWER

In a nutshell, this is a super-sounding pre/power that offers an unshowy yet beautifully resolved sound, with abundant power allied to great poise. It's also extremely *musically* satisfying, too. Art Of Noise's 'Moments In Love' [Who's Afraid Of...; Polystar] served up a vast stereo soundstage, the crisp and superbly etched sound flowing forth in a lovely, unforced way.

And with the more subtle acoustic-folk strains of Heidi Berry's 'Washington Square' [Love; 4AD] we were struck by its filigree detailing of the backing tom-toms and tambourines, and the exquisitely textured rendition of Berry's velvety vocals that floated ethereally above the fray.

Tonally these Revelation amps are highly neutral, while low-level detail resolution is superb. Hence the opening movement from Mahler's Symphony No 4 [Budapest Fest Orch/Iván Fischer; Channel Classics] sounded spectacular.

Another key trait is the very natural way it handles rhythms: you get an unusually realistic reading of the flow of a song. De La Soul's 'A Rollerskating Jam...' [Tommy Boy] proved a huge listening pleasure, where we were entranced by the sublime phrasing of vocals, locked in time to a massive bass drum sound.

ABOVE: A 432x230-pixel screen on the preamp's fascia is flanked by rotaries for balance/volume

VERDICT

Constellation's handsome Pictor/Taurus Stereo is both immensely transparent yet tonally smooth as silk, rhythmically gifted and blessed with reserves of effortless power. It's a high-end masterpiece. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	415W / 665W
Dynamic power (<1% THD, 8/4/2/1ohm)	455W / 820W / 1.14kW / 580W
Output imp. (20Hz–20kHz, pre/power)	119ohm / 0.034–0.051ohm
Freq. resp. (20Hz–100kHz, pre/power)	+0.0 to -0.09dB / -2.4 to -0.4dB
Input sensitivity (for 0dBV/0dBW)	48mV (pre) / 157mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	91.0dB (pre) / 96.1dB (power)
Distortion (20Hz–20kHz, 1V/10W)	0.0004–0.0009%/0.004–0.038%
Power consump. (pre/idle/rated o/p)	27W / 88W/940W
Dimensions (WHD Pre/Power)	432x133x381/476x297x603mm



Preamplifier & stereo power amplifier. Rated at 300W/8ohm
Made by: D'Agostino LLC, Connecticut, USA
Supplied by: Absolute Sounds Ltd
Telephone: 0208 971 3909
Web: www.dagostinoinc.com; www.absolutesounds.com
Price (pre/power): £24,998/£24,998

AUDIO FILE



D'Agostino Progression Preamp/Stereo

Offering fully balanced operation, the £25k Progression Stereo amplifier is said to generate 300W/8ohm, doubling into 4ohm. Heat is dissipated via venturi-style circular 'chimneys' milled from aluminium, while its trademark green illuminated power meter – two swing arm needles here! – serves to echo the brand's green credentials. And, of course, there are two balanced XLR inputs

'With such religious emotion it could convert the devil himself'

and two sets of gold-plated 4mm speaker binding posts.

The power button is hidden at the front underside edge, while at the rear you find a 12V on/off trigger connection, a toggle to set meter brightness, a main breaker switch and the AC power connector.

The Progression Preamplifier (also £25k) is the first of D'Agostino's offerings to feature an optional (£5k) DAC module. It also includes a Bluetooth remote handset that does not require line-of-sight to operate.

The two multi-function meters indicate signal level by default and gain/balance settings by selection. They also indicate inverted polarity,

Mute, or 'Dark Mode' by blanking out after 15s.

The centrally placed volume knob controls a precision-stepped attenuator, and a gain adjustment of +9dB or +15dB is available, the latter for use with low-gain power amplifiers. To the left of the fascia you find the Standby, Zone, Analogue/Digital Source buttons.

As seen above, the preamp sits on a PSU via four spiked feet and it's connected to this via an umbilical.

The rear panel is busy with single-ended RCA inputs for Phono and Aux, and balanced XLRs for Theatre (bypass), Radio, Server and DAC. Two balanced XLR outputs are offered as 'Zone 1 and 2' while a plate covers the bay for D'Agostino's optional USB and S/PDIF DAC module.

MAGICAL REALISM

We began with London Grammar's electronic pop debut album *If You Wait* [UM], where both the title song and 'Hey Now' are heavy on digital reverb, conveying a feeling of ethereal spaciousness with weeping electric guitars, languorous keyboards and vicious bass lines.

Hannah Reid's voice was both powerful and filled with emotional urgency. The Progression combo feasted on this atmospheric ride, taking advantage of the time cues

ABOVE: Stacked preamp and its associated power supply unit

BETWEEN:
The 300W Progression stereo power amplifier – with meter needles for its two channels



HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	325W / 575W
Dynamic power (<1% THD, 8/4/2/1ohm)	365W / 690W / 1325W / 2290W
Output imp. (20Hz–20kHz, pre/power)	39ohm / 0.17–0.19ohm
Freq. resp. (20Hz–100kHz, pre/power)	+0.45 to –0.13dB / +0.0 to –1.6dB
Input sensitivity (for 0dBV/0dBW)	322mV (pre) / 181mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	99.5dB (pre) / 79.6dB (power)
Distortion (20Hz–20kHz, 1V/10W)	0.0005–0.0007%/0.040–0.071%
Power consump. (pre/idle/rated o/p)	33W / 113W/970W
Dimensions (WHD, Pre/Power)	450x108x300/457x190x508mm

AUDIO FILE

Pre & power amplifier. Rated at 550W/8ohm
 Made by: Emotiva Audio Corporation, Tennessee, USA
 Supplied by: Karma AV, York
 Telephone: 01423 358846
 Web: <https://emotiva.com>; www.karma-av.co.uk
 Prices (pre/power amp): £1419/£1750



Emotiva XSP-1/XPA

Many high-end hi-fi products are devoid of fripperies because the lion's share of the build budget is spent on the bits you can't see, such as high quality components. Tennessee-based Emotiva is an avowedly 'budget

'This fully featured duo has the watts to power a nightclub'

audiophile' brand with a mission to give customers lots of metal for their money, plus serious sound too.

Its new £1419 XSP-1 Differential Reference preamp and partnering £1750 XPA-DR2 stereo power amp are the embodiment of this approach. Big, muscular-looking and loaded with features, this combo packs a serious amount of power.

The XSP-1 has a fully differential, all-analogue signal path and makes extensive use of surface-mount components. In addition to its four

RCA line inputs and two balanced XLR ins, there's an MM/MC phono stage. Also, instead of an old school volume pot, a digitally-controlled resistor ladder network is used that promises superior channel matching. Boost and Cut buttons on the fascia offer a subtle ±3dB trim below 200Hz and above 4kHz.

The XPA-DR2 is rated at a not inconsiderable 550W/8ohm and 800W/4ohm. At the back can be found two pairs of loudspeaker binding posts, and each channel has its own unbalanced RCA input and balanced XLR with a small switch to select between them.

NO FRILLS

The XSP-1 performed very well across all inputs, with a basic rightness to its sound that made it easy to enjoy whatever was played. Via the phono stage, Grant Green's 'Alone Together' [Green Street; Blue Note] showed it to be low in noise, smooth in tone, dynamically articulate and flowing in rhythm. Its soundstage was capacious.

ABOVE: The Emotiva fascias are big and brash with backlit controls and a large central preamp display. Fit and finish is very good for the money

And with Cerrone's 'Supernature' [Big Break Records], a classic dance track from the late '70s, the XSP-1/XPA-DR2 gave the sort of scale that you'd normally expect from a far pricier pre/power combo. The architectural structure of the recording was clearly discernible, complete with a good degree of depth and accurately placed instruments within the mix. The lead vocal line was held between the speakers with great confidence.

Another distinctive trait of these amps is their clean rendition of tone and timbre. The music sounded neutral, with no airbrushing of the treble, or steroid-enhanced bass. This meant Cerrone's backing vocals were evenly carried without any excess waffle or warmth.

Nor was the XPA-DR2's sheer power ever in doubt. It took all the speakers we had to hand – some quite difficult loads – and shook them around the room like a dog with an old rag doll.

Switching to the more clinical-sounding early '80s indie rock track, 'Wonderful Woman' by The Smiths [WEA] the Emotiva duo didn't gild the lily, but still let us enjoy the inherent quality of the recording. Morrissey's voice was immediate, up close and well described from a textural point of view, with a directness and honesty that is usually the province of far pricier audio products.

VERDICT

Emotiva's fully featured duo has enough watts to power a nightclub, plus good build, a fair selection of useful features and strong sound quality. It may not have all the latest connectivity options, but its value is hard to argue with. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	650W / 1.02kW
Dynamic power (<1% THD, 8/4/2/1ohm)	800W / 1.38kW / 2.06kW / 255W
Output imp. (20Hz-20kHz, pre/power)	945ohm / 0.032–0.070ohm
Freq. resp. (20Hz-100kHz, pre/power)	+0.0 to -0.27dB / +0.0 to -5.1dB
Input sensitivity (for 0dBV/0dBW)	270mV (pre) / 90mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	101.7dB (pre) / 94.5dB (power)
Distortion (20Hz-20kHz, 1V/10W)	0.0002–0.0005% / 0.0038–0.006%
Power consump. (pre/idle/rated o/p)	21W / 40W/1700W
Dimensions (WHD, Pre/Power)	432x152x419/432x203x483mm

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AUDIO FILE

Pre & power amplifier. Rated at 200W/8ohm
 Made by: Exposure Electronics, Lancing, UK
 Supplied by: Exposure Electronics
 Telephone: 01273 423877
 Web: www.exposurehifi.com
 Prices (pre/power amp): £2000/£4550 (pair)



Exposure 5010 preamp/monos

These new 5010 models replace Exposure's MCX series as the company's flagship models. Exposure claims 200W apiece for the 5010 mono power amps (£2275 each), while an optional £370 DAC input board can be fitted to the £2000 preamplifier, offering a coaxial input handling formats up to 192kHz/

'Music thunders at full charge while delighting with its clarity'

24-bit in addition to a USB port that adds DSD64 via DoP.

With two sets of RCA outputs and a pair of balanced XLRs, the solidly engineered 5010 preamplifier can also accept a choice of self-fit MM or MC phono boards at £265 apiece, replacing one of the standard six line-ins (which include a tape loop). It's built around a 200W transformer, with high-speed

rectifiers and 24 smoothing caps, while the audio section is DC-coupled using servos and Class A buffering at the output, and just one capacitor at the input. Relay switching for input selection keeps signal paths as short as possible.

The 5010 mono power amp is similarly elegant, if superficially 'old school' in its design, with an 800W power transformer and massive smoothing capacitors downstream of the dual rectification. It is DC coupled throughout, with cascade circuits for the input and second amplifier stages for improved linearity and power supply isolation. It also boasts eight bipolar transistors per channel feeding the two sets of 4mm socket speaker outputs.

NO-NONSENSE

This Exposure trio shows clear all-round ability, and is at home thundering out music at full charge as it is when delighting with

ABOVE: The Exposure 5010 preamp [top unit] and 200W monoblocks have black casework but fascias can be black or titanium

the sheer amount of clarity and information on offer. That is much in evidence with the dense (and often mono) mixes on *The Essential Phil Spector [Legacy]*, with the plaintive vocal and harmonies of The Ronettes on 'Be My Baby' beautifully showcased against the big 'wall of sound' orchestration, while The Righteous Brothers sound suitably lush and magnificent on 'Ebb Tide'.

The 5010s' open, tightly-controlled and yet massively dynamic sound is heard to good effect with a fine release such as Reference Recordings' Beethoven 'Eroica', by the Pittsburgh SO under Manfred Honeck [192kHz/24-bit download]. The Symphony explodes into action with the hard-hitting opening chords, instantly setting the stage with a big, crisply-defined picture of the orchestra, with rhythms sprightly and captivating. In the Funeral March, the sombre mood is delicately shaded and yet still dramatic, and the instrumental timbres are rendered with impressive texture and detail.

Play Katia Labèque and Triple Sun's *Moondog* set of works by Louis Thomas Hardin, in an immaculate recording by guitarist/keyboard player David Chalmin [DG; 88.2kHz/24-bit download], and the sound is effortlessly three-dimensional and yet intimate and firmly focused, whether in the dream-like opening of 'Bird's Lament' or the snarling guitar break to which it builds.

VERDICT

The 5010 system is highly revealing without ever becoming excessively bright or overbearing, while the power amps are especially worthy of praise for their power and grip. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	213W / 415W
Dynamic power (<1% THD, 8/4/2/1ohm)	220W / 428W / 804W / 1.22kW
Output imp. (20Hz-20kHz, pre/power)	46ohm / 0.011–0.018ohm
Freq. resp. (20Hz–100kHz, pre/power)	+0.0 to -7.2dB / +0.0 to -5.8dB
Input sensitivity (for 0dBV/0dBW)	190mV (pre) / 179mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	94.6dB (pre) / 98.2dB (power)
Distortion (20Hz-20kHz, 1V/10W)	0.0001–0.0003%/0.0006–0.005%
Power consump. (pre/idle/rated o/p)	10W / 45W/330W (mono)
Dimensions (WHD, Pre/Pow)/Weight	440x90(115)x300mm/6kg (14kg)



Pre & power amplifier. Rated at 250W/8ohm
 Made by: Harman International Ind., Northridge, CA, USA
 Supplied by: Harman Luxury Audio Group (UK), Cambridge
 Telephone: 01223 203200
 Web: www.marklevinson.com
 Prices (pre/power amp): £16,000/£21,000

AUDIO FILE



Mark Levinson N°523/N°534

Big, heavy and undeniably purposeful-looking, the £16k N°523 preamp and £21k N°534 power amplifier might disappoint anyone expecting a complexity in features and facilities. Rather, what your

'It delivers the drama and dynamics with spine-tingling results'

money gets you is a combination of solid audio engineering and 'less is more' resolutely 'old-school' thinking – with the N°523 there's not a sniff of a DAC board or streaming module...

What the N°523 aims for is the simplicity of the company's mighty two-box N°52 preamp [HFN May '14] but at around half the price. It's a preamp dedicated to analogue audio sources, with three sets of RCA and two pairs of balanced XLR inputs, plus a built-in phono stage

offering user-selectable gain, input loading and an infrasonic filter. The volume control is a resistor-ladder design, digitally controlled but fully analogue in its implementation. On the output side there's the usual choice of balanced XLRs and single-ended RCA phonos, their positioning emphasising the dual-mono layout.

The partnering N°534 power amp is in essence a stereo version of the N°536 [HFN Sep '16], but with no shortage of ability when it comes to driving and controlling even the most recalcitrant speakers. Again there are the same control ports, along with unbalanced and XLR inputs, and the speaker outputs are on two pairs of Mark Levinson's winged 'Hurricane' terminals.

The N°534 is built around a massive toroidal transformer and is a dual-mono design with 12 power transistors a side, mounted straight onto the heatsinks. And while other amplifiers stick to using aluminium

ABOVE: The N°523 preamp is menu-driven but features phono and analogue line-ins only – no digital. The massive N°534 amp [below] is a stereo version of ML's N°536 monoblock

for their casework, the N°534 power amp supplements it with cold-rolled steel!

REAL THUNDER

This pre/power amp duo is unstoppably powerful whenever required, with rock-solid bass yet above it a remarkable agile midband and treble that make a wide range of musical styles spring to life in totally vivid manner. 'Unflappable' doesn't really cover it.

That's as true when you're playing the full-on weight of Gov't Mule's *The Deepest End* [Evangeline/ATO Records] or unleashing the Wagnerian power of *The Symphonic Ring* [Acousence Classics]. This live recording delivers sensational dynamics and drama in a really visceral manner, and the result is entirely spine-tingling.

Yes, this duo will do polite too, and works as well with a small jazz trio as it does with solo pianoforte. Or even those wispy-sounding singer-songwriter recordings displaying just a little too much earnestness for their own good...

But where they really excel is with music built on a foundation of thunder and atmosphere. They charge into the final few tracks of Fleetwood Mac's *The Dance* [Reprise], turning on the big smiles when the USC Marching Band kick in on 'Tusk', the blare of the brass shooting through the track's big and gorgeously rich mix.

VERDICT

Overkill for many systems, but this amplifier combination is resolutely old school in its styling and sheer mass, rewarding those able to accommodate it with a sound as revealing as it is room-shaking. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	297W / 550W
Dynamic power (<1% THD, 8/4/2/1ohm)	335W / 638W / 1245W / 480W
Output imp. (20Hz–20kHz, pre/power)	74ohm / 0.040–0.048ohm
Freq. resp. (20Hz–100kHz, pre/power)	+0.0 to –0.3dB / +0.0 to –2.7dB
Input sensitivity (for 0dBV/0dBW)	211mV (pre) / 165mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	97.1dB (pre) / 95.7dB (power)
Distortion (20Hz–20kHz, 1V/10W)	0.0001–0.0004%/0.016–0.090%
Power consump. (pre/idle/rated o/p)	58W / 315W/975W
Dimensions (WHD, Pre/Power)	438x102x457/451x197x508mm

AUDIO FILE

Pre (inc. DAC)/power amplifier. Rated at 200W/8ohm
 Made by: YBA, Bures sur Yvette, France/Shanling, China
 Supplied by: Nintronics Ltd, Herts
 Telephone: 01707 320 788
 Web: www.ybahifi.com; www.nintronics.co.uk
 Price (pre/power): £6750/£5750



YBA Passion PRE550/AMP650

Yves-Bernard André's eponymous brand is now taking a more global view with an extended lineup – the £6750 Passion PRE550A preamp and £5750 AMP650 power amp sitting near the top of the pile.

With the former, all incoming digital signals, whether via USB

'Eriksen's piano notes shine radiantly, then decay into the acoustic'

or coaxial/optical S/PDIF, are upscaled to 192kHz and a digital output is offered on a coax socket. Unusually, there's an Apple AirPlay module slotted into the rear panel, along with a USB Type A port for use with an iPod. There's Ethernet for network connection, while a second RJ45 socket allows transmission of digital data in the I²S format.

Digital and analogue sections are separated to the point of individual

PSU transformers, and in a quest for signal purity the design eliminates passive components in the signal path. You can also shut down the digital section completely, excluding any possible interference with the analogue stages.

Inputs and outputs comprise one set of balanced XLRs and two sets of RCAs (André says he prefers the RCA connection for the partnering AMP650). Fascia controls extend to no more than source and volume selection, plus switches for phase and muting, the handset adding display dimming and recall of volume setting.

The AMP650A, which has a claimed 220W/8ohm power, offers two sets of speaker outputs per channel, the upper pair of each being coupled via an inductor.

SWEET AND RICH

The partnership here delivers a sound that's certainly characterful, but entirely entertaining. There's

no shortage of impact and drama when required – the duo can hit hard, whether with music played in through the analogue inputs or fed via its range of digital connections.

We were impressed with its combination of smoothness and slam, powering out the drums on Japan's 'Visions Of China' from *Exorcising Ghosts* [Virgin] and evoking the melancholia of 'Night Porter' with a fine combination of ambience and instrumental focus.

With M People's *Elegant Slumming* set [Deconstruction] the AMP650 lays down the rhythms with conviction, while allowing Heather Small's vocal's to soar out. Bringing things bang up to date with Moby's soulful *Everything Was Beautiful...* [Little Idiot] shows the pairing's ability to reveal the layers of dense electronica in a recording. This is a complex set, but the YBA pre/power rises to the occasion with an immersive wash of sound where every element is clearly apparent.

Strip things back down to trio jazz from the Espen Eriksen Trio, with *You Had Me At Goodbye* [Rune Grammofon], and the delicate touch here is much in evidence on 'In The Woods', where each note of Eriksen's piano shines radiantly, decaying into the acoustic as the next rolls over it. What's more, the understated bass and drums are persuasively placed in a crisply resolved soundstage.

VERDICT

High-end sound with a dose of chic and elan. There's warmth and generosity here with finely-judged detail and ambience. The pre has all the flexibility most will need, while the power amp's grip and dynamics make it a fine partner. Ⓜ

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	223W / 336W
Dynamic power (<1% THD, 8/4/2/1ohm)	252W / 460W / 650W / 628W
Output impedance (20Hz–20kHz)	0.023–0.041ohm (<140ohm, pre)
Freq. resp. (20Hz–20kHz/100kHz)	+0.0 to –0.2dB/-3.3dB (-1.1dB, pre)
Distortion (20Hz–20kHz, pre/power)	0.00013–0.001% / 0.065–0.11%
A-wtd S/N ratio (re. OdBv/0dBW)	93.8dB (pre) / 70.5dB (power)
Digital Jitter (48kHz/96kHz)	40psec / 25psec
Power consumption (idle/rated o/p)	35W / 625W (14W, preamp)
Dimensions (WHD, pre/power)	430x118x412/430x178x397mm



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AUDIO FILE

Integrated CD player/DAC/amplifier. Rated at 75W/8ohm
Made by: International Audio Group, China
Supplied by: IAG Ltd, Cambs
Telephone: 01480 447700
Web: www.quad-hifi.co.uk; www.internationalaudiogroup.com
Price: £1500



Quad Artera Solus

So far, Quad's Artera family has comprised the Play+ combined CD transport, DAC and preamp and the Stereo power amp [HFN Nov '15]. Now all of these elements (plus streaming) are fitted into a chassis having the same proportions as the other components in the Artera range.

Products promoted as fine examples of industrial design can often appear as stark and cold and the Solus certainly flirts with this idea – especially if you forgo the contrasting silver fascia in favour of chassis-matching black. But it

Outputs, meanwhile, comprise balanced (XLR) and single-ended (RCA) pre-outs for harnessing a more muscular power amplifier, and there's a choice of coaxial or optical digital outs for use with an external DAC. Quad has also accessed four of the chosen ESS ES9018 DAC chip's inbuilt filter settings: 'Fast', 'Smooth', 'Narrow' and 'Wide'.

The slot-loading CD transport mechanism and attendant electronics play their part in allowing the DAC to do its best work, buffering the data being read from the disc – in an effort to minimise jitter – before feeding it asynchronously to the DAC board.

Pre and power amp sections are minimalist in design and are linked by short, direct signal paths.

Volume is digitally governed but executed in the analogue domain, outputting directly to the dual-mono Class AB power amp section.

But if the claimed 75W/8ohm power output looks a little modest on paper, Quad avows that its generous reserves of current mean awkward speaker loads simply aren't a problem. In fact it says the Artera Solus will even drive its demanding electrostatic speakers.

SHINE ON

Spookily apt given the lyric of the first CD into the slot, the player's portrayal of Bruno Mars' bouncy 'Finesse' [Atlantic] really was

'This has to be one of the most desirable one-box systems we've yet heard'

also imbues a clean, sharp and chunky form factor with just enough character to charm rather than chill.

At present this £1500 unit is equipped with aptX Bluetooth providing basic streaming, but this will soon be joined by a premium version that will add app-controlled Wi-Fi streaming or retro-fit network capability to your existing player.

The Artera Solus provides support for PCM data up to 384kHz/32-bit and DSD64/128/256. Connectivity is comprehensive, with doubled-up optical and coaxial digital inputs plus another two line-level analogue ins and a single USB-B for linking to a PC or Mac.

dripping in finesse, the Artera Solus pulling off the hardest trick of successfully separating the high-energy impetus of the track, with its ballooning bass and staccato drum patterns, from the fine inner detail and complex, layered textures.

With the slow-burning beauty of the *Adagio* from Vladimir Ashkenazy's Concertgebouw recording of Rachmaninov's Symphony No 2 [Decca], the Artera Solus's richer balance really paid off. It gave the opening section's gently sighing violins and melody-weaving clarinet fine delicacy and depth.

It was much the same story when we played high-resolution files. Barb Jungr's 2016 recording of Bruce Springsteen's 'Long Walk Home' [*Shelter From The Storm*; Linn Records, 96kHz/24-bit] sounded fluent and full-bodied while enjoying a warm, natural balance.

As for Bluetooth streaming, this was about as good as it gets. The sound was certainly listenable and stable, even if it was softer and less dynamic than when playing a CD or listening to a hi-res file.

The Quad Artera Solus has to be one of the most desirable one-box systems we've so far heard. Compact, sturdy and boasting a sound that's not just rich but powerful, it makes a compelling case for itself at the price.

VERDICT

The Artera Solus is a tremendous one-box system and an absolute steal. It may lack Wi-Fi streaming at present, but this is coming. In all other respects it not only looks and feels far more expensive than it is, it sounds it too. Partner it with fine speakers, though, to show what it's really capable of. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	84W / 140W
Dynamic power (<1% THD, 8/4/2/1ohm)	105W / 197W / 303W / 170W
Output impedance (20Hz-20kHz)	0.04–0.09ohm (116ohm, pre)
Freq. resp. (20Hz-20kHz/100kHz)	+0.0 to -0.1dB/-2.55dB (Analogue)
Distortion (20Hz-20kHz, 0dBFS/0dBW)	0.0012–0.0015% / 0.016–0.045%
A-wtd S/N ratio (re. 0dBFS/0dBW)	109.5dB (Dig) / 89.6dB (Analogue)
Digital jitter (CD / 48kHz/96kHz)	130psec / 15psec / 10psec
Power consumption (idle/rated o/p)	20W / 250W (1W, standby)
Dimensions (WHD / Weight)	320x105x320mm / 11.8kg



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AUDIO FILE

Five-driver hybrid earphone
Made by: AKG Acoustics GmbH
Supplied by: Harman Consumer UK Division, Herts
Telephone: 01707 278113
Web: <http://uk.akg.com>
Price: £800



AKG N5005

If the subject of this review were a five-way over-ear headphone you'd think the world had gone mad. Yet going down the size scale one more notch to the insert earphone (*aka* in-ear headphone) we have here and AKG's £800 flagship model boasts, yes, *five* drive units within its compact exterior dimensions. For some, this won't come entirely as a surprise since this has clearly been AKG's trajectory. The K3003i [HFN Apr '12] was a three-way and considered a triumph of micro-engineering.

While its price, its five drivers and its sleek and hardwearing black ceramic finish will be the features that garner most headlines, the N5005 will earn a place in headphone history for quite another reason. Harman Research Fellow Sean Olive and colleagues have been hard at work pinning down exactly what the ideal frequency response for a headphone should be. And the N5005 (AKG is now a Samsung brand) is the first insert headphone to adhere closely to it.

'AKG's N5005 remained agile on the fast bass runs in "Fender Bender"'

Even so, when you open its immaculate packaging you find a small metal plate that carries four pairs of screw-in acoustic filters. These enable the user to adjust the tonal balance to taste.

The factory-fitted 'Reference Sound' filters provide a close match to Harman's target response. 'Bass Boost', 'Mid High Boost' and 'High Boost' all affect the same frequency range *above* 1kHz. Attenuating this part of the spectrum makes the bass appear more prominent while boosting it will suit listeners who like a brighter sound or who suffer high frequency hearing loss.

Two 1.3m connecting leads are supplied. The first, with a 2.5mm TRRS jack plug, has no inline remote control but facilitates

balanced drive of the two earpieces if available. The second, with a 3.5mm TRRS jack, has a three-button remote/mic compatible with Android and iOS source devices, selectable by a small slider switch. Connection to the earpieces is via gold-plated MMCX push-on connectors, which allows the substitution of aftermarket cabling (AKG's chunky bronze-coloured cable loops up and around the back of each ear). A Bluetooth 4.1 dongle is also supplied – it provides aptX compatibility but does not yet support the latest aptX HD codec.

With any insert earphone it is essential to achieve a good seal to the ear canal otherwise bass response and isolation of external sounds will both be compromised. To ensure this AKG provides seven pairs of tips in four different sizes.

FUN WITH FILTERS

Having run the N5005 in on pink noise we began by testing which of the four filters to use.

'Reference Sound' we quickly decided was too bright with violins sounding scratchy and vocals having wispy, overemphasised sibilants. 'Bass Boost' rewarded

us with a much more neutral tonal balance without the heavy, plodding bass or thickened lower-mid characteristic of so many modern headphones.

Imaging wasn't as spacious as with the best over-ear headphones but that's a characteristic of insert earphones. Overall the sound was clean, clear and without undue emphasis anywhere in the spectrum. We played a variety of favourite bass test tracks and the N5005 proved adept at reproducing the lowest fundamentals while at the same time remaining agile on fast bass runs like those in Chris Jones' 'Fender Bender' [Roadhouses & Automobiles; Stockfisch].

Perhaps few will use the N5005 to listen to chamber music but it



ABOVE: Two detachable cables are supplied, one allowing balanced connection and the other having an inline remote/mic compatible with Android or iOS. Bluetooth is accommodated

turned the rare trick of retaining the *Presto*'s shocking vigour in Haydn's String Quartet, Op.76 [2L] without letting the recording's incipient harshness spoil things. It did a good job too on Tony Faulkner's peerless recording of Beethoven's Op.18:5, played with great elan by The Allegri String Quartet [Vivat].

VERDICT

If you want superior sound on the move, without having to schlep a bulky over-ear headphone, the N5005 is a fine choice. Its adaptable frequency response will suit it to a wide range of listeners, and it looks understatedly chic. ☺

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL at 1kHz for 1Vrms input)	115.5dB
Impedance modulus min/max (20Hz-20kHz)	13.7ohm @ 13kHz 24.7ohm @ 1.4kHz
Capsule matching (40Hz-10kHz)	±1.8dB
LF extension (-6dB ref. 200Hz)	<20Hz
Distortion 100Hz/1kHz (for 90dB SPL)	0.5% / 0.4%
Weight (inc cable and 0.25in connector)	31g



Open-backed, circumaural headphone
Made by: Audio-Technica Corp, Tokyo, Japan
Supplied by: Audio-Technica Limited (UK), Leeds
Telephone: 0113 277 1441
Web: <http://eu.audio-technica.com/en>
Price: £1990

AUDIO
FILE

Audio-Technica ATH-ADX5000

If you thought you'd know what to expect from A-T's most expensive headphones, this may surprise you a little. Firstly, the £1990 ADX5000 does not use A-T's unique 3D Wing Support system for locating itself on your head, but has reverted to a more conventional headband arrangement with sliders for capsule adjustment.

Secondly, while many of the costlier A-T headphones have Y-cables with separate connection to the left and right capsules, the ADX5000 is the first, we believe, to have a detachable cable. This is ideal for those who want to try out aftermarket headphone cables or are aficionados of balanced headphone drive.

The ADX5000's single 3m detachable cable allows for both, and features 6N oxygen-free copper, terminated in a 1/4in (6.35mm) jack plug. Capsule connection is via gold-plated push-fit coaxial connectors.

'Grace Jones strutted the streets propelled by an intoxicating rhythm'

Surprise three? Rather than having the expected medium impedance of 40ohm or thereabouts the ADX5000 has a nominal impedance of 420ohm, as if it were a Beyerdynamic 'phone!

It is also one of the most open open-backs we've seen. The thin metal capsule back, with its hexagonal-pattern perforations, provides an almost uninterrupted view of the rear of the 58mm drive unit and internal mounting baffle.

That drive unit is of the familiar headphone construction: a domed centre section (at the periphery of which the voice coil is attached), encircled by a ribbed and domed annulus that is part diaphragm, part flexible surround. The diaphragm

material is not specified but is tungsten-coated to enhance its stiffness. 'To reduce unwanted vibrations' and save weight, the driver and baffle are of integrated construction rather than the one being bolted to the other, and A-T has abandoned its traditional magnesium alloy baffle frame for one made from a composite of glassfibre and polyphenyl sulphide.

Comfort, meanwhile, is good. The large, soft, Alcantara-covered earpads are truly circumaural, with no pinching or rucking of the pinnae. What's more, head-clamping pressure is modest, and the wide headband rests easily on the scalp.

TRANSPARENT TUNES

The ADX5000's tonal balance is pretty neutral and – hooray! – does not endorse the excess bass and lower-midrange that make so many modern 'phones a dull, uninformative listen.

The facets of the ADX5000's character were well illustrated by the *Presto* from Haydn's

String Quartet in D [2L]. These A-Ts retained the energy of this committed performance and clearly separated the instrumental contributions. There was a tad less tonal warmth to the sound than we'd call ideal but that was acceptable. We were also conscious of a slightly constricted soundstage – it's a characteristic that you'd just have to accept, or not.

On three favourite test tracks, the deep bass of Jennifer Warnes' 'Somewhere, Somebody' from *The Hunter* [Private Music] was weighty enough; double-bass was clean and clear in the Oscar Peterson Trio's 'You Look Good To Me' [*We Get Requests*; Analogue Productions/*Verve*]; and in 'Walking In The Rain'



ABOVE: This is the first top A-T headphone with a detachable cable. As well as allowing use with aftermarket cables, this arrangement permits balanced drive too

from *Nightclubbing* [96kHz/24-bit download] Grace Jones strutted the wet streets propelled by Sly & Robbie's intoxicating rhythm.

VERDICT

A-T's finest is better than 90% of the headphones that come our way. It majors on neutrality and clarity, arguably to a fault. If only it could image a little more expansively, our undoubted respect would surely have turned to love. ☺

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL at 1kHz for 1Vrms input)	105.7dB
Impedance modulus minimum & maximum (20Hz-20kHz)	397ohm @ 2.4kHz 817ohm @ 92Hz
Capsule matching (40Hz-10kHz)	±5.0dB
LF extension (-6dB ref. 200Hz)	17Hz
Distortion 100Hz/1kHz (for 90dB SPL)	0.2% / <0.1%
Weight (inc cable and 0.25in connector)	358g

AUDIO FILE

Closed-back circumaural noise-cancelling headphone
Made by: B&W Group Ltd, West Sussex
Supplied by: B&W Group Ltd
Telephone: 0800 232 1513
Web: www.bowers-wilkins.co.uk
Price: £329



B&W PX

Bowers & Wilkins took its time before releasing the £329 PX, its first noise-cancelling (NC) headphones. It's a design calculated not to mar the listening experience and has just about every state-of-the-art digital feature you could wish for.

The PX offers 'adjustable' NC with three listening modes. 'Flight' blocks out engine noise in an aircraft cabin, 'Office' relaxes the noise-cancellation to allow you to hear voices around you in a busy office and 'City' mode lets you listen out for traffic sounds when you are out and about.

The B&W PX is the first set of headphones we've seen that supports AptX HD – the latest version of AptX. It's also equipped with the versatile new USB-C interface, which can be used to both charge the internal battery and handle USB audio from a variety of computers and mobile devices. For use as standard wired headphones (with or without NC) there's a 1.2m cable with 3.5mm jack included.

Large playback and volume buttons on the right-hand earpiece feel firm and responsive, while those

the effect of listening to external speakers. You can also fold the earpieces flat for carrying.

The adjustable, padded headband is sturdy enough to cope with life on the road and grips fairly tightly, but the padded leather earpieces feel comfortable enough to wear for long periods of time.

RELAXED AND OPEN

Auditioned wired via Pro-Ject's Pre Box DS2 Digital [HFN Nov '17], the gentle acoustic sound of 'The Blower's Daughter' by Damien Rice [O; 14th Floor Records] had a lightness of touch, the PX capturing the hesitancy in his vocals and the warmth of the softly strummed guitar. Relaxed and open, it sounded as though Rice was picking away right in front of us.

The 'phones also coped with the soaring cathedral of sound invoked by Pro Cantione Antiqua in Tallis's 'Spem In Alium' [Alto]. The various groups of choristers remained clear and distinct, and even the quiet, whispered voices in the background remained audible.

We were pleased to find the PX continued to perform well with a mobile music set-up, listening to lossless files on an iPhone via the sturdy RHA Dacamp L1 [HFN Apr '17]. The PX kept the same clarity and detail in the layered voices, and the sense of space was impressive.

Perhaps the PX goes a little overboard with the lower-mid and bass frequencies, yet the low-end was quite effective with the ambient electronics of Max Richter's 'Shadow Journal' [The Blue Notebooks; DG], producing an ominous, subterranean rumble that was well suited to the piece.

Turning to the NC feature, the mildest 'Office' mode had little effect on frequency response, and the PX continued to deliver strong sound quality. With the full noise-cancellation of 'Flight' the soundstage did seem just a little more constrained, but the detail and richness of both instruments



ABOVE: B&W's PX includes a range of high-tech features, with effective noise-cancellation, AptX HD and USB-C connectivity

and voices remained impressive, while the NC went about the task of blocking out background noise very effectively indeed.

VERDICT

B&W's PX is certainly money well spent, even if you primarily use it as a set of wired headphones. But it will also earn its keep when travelling, thanks to its effective noise-cancellation that still manages to provide a detailed sound. ☺

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL at 1kHz for 1Vrms input)	117.5dB
Impedance modulus min/max (20Hz-20kHz)	846ohm @ 20kHz 904ohm @ 20Hz
Capsule matching (40Hz-10kHz)	±10.4dB
LF extension (-6dB ref. 200Hz)	22Hz
Distortion 100Hz/1kHz (for 90dB SPL)	0.1% / 0.4%
Weight (inc cable)	350g

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AUDIO FILE

Open-back circumaural headphone
Manufactured by: Focal-JMlab, France
Supplied by: Focal-JMlab UK Ltd, Salisbury
Telephone: 0845 660 2680
Web: www.focal.com
Price: £1399



Focal Clear

We won't hazard a guess as to the longevity of the boom in headphone sales. As long as it continues, however, in the best 'make hay while the sun shines' manner, Focal is covering all its bases. The latest to join its high-end family is this £1399 Clear.

Maybe someone at Focal has an eye on how the affluent might spend their spare cash. So, the packaging is exemplary in the Apple manner, and Focal has gone the extra kilometre by providing a superlative, padded carry-case.

Focal equips the Clear with a 1.2m cable set for use with a portable device, with a 6.35mm jack convertible to a 3.5mm mini-jack, 3m with 6.35mm-only jack, and 3m balanced cable. Detachable from each cup, they'd allow you to experiment with aftermarket cables.

Nowadays you see on every Tube journey, on any airplane, countless people travelling or walking or jogging with headphones that can only be described as 'massive'. We have no problem with the Princess Leia look, but find cumbersome

who would leave home wearing £1400's worth of light-grey, easily-scared luxo-cans on their head?

VALVE-LIKE LUSHNESS

Close listening involved the Metaxas Marquis 'Memento Mori' [HFN Dec '17] and Quad PA-One [HFN Feb '15] headphone amplifiers. Such is the transparency of the Clear that the differences in these two feeds were easily discernible, the best match in terms of overall balance being the Marquis, though the Clear certainly exploited the added warmth of the Quad PA-One's valves. But even with the solid-state unit the sound had a lushness that might easily be attributable to valve amps of the old school.

We were listening to Gregg Allman's poignant, prescient swan-song *Southern Blood* [Rounder] via a Marantz CD12/DA12, and both his vocals and the brass changed in this manner, but subjectivity allowed you to prefer either/or. What we especially loved about the Clear

was its bottom end, perfectly proportioned, extended, solid and dry in the album's heart-breaking cover of Lowell George's 'Willin'.

As with other Focal headphones we've used,

the Clear falls into the smooth-and-silky quadrant of audio's Venn diagram. It's apparent even with raucous material, such as The Motors' 'Dancing The Night Away' [Caroline box set]. After a jangly, twangy intro, in come power chords, pounding drums and an intensity in the vocals that suggests strained jugulars. The Clears kept it all together, widely spreading the sound (at 1m 36s) to show you how it can exist outside the head.

Some might find the warm 'n' fuzzy nature, applied to something as feverish as The Motors' debut LP's opener, a touch ironic. This post-punk frenzy ought to rip the top of your head off. Here, the hard

'The attack was still crisp – only the nasties were well controlled'

cans to be an irritant outside of the home or listening room.

Most of us have two basic headphone needs: serious listening in the home and convenience usage on the go. For the latter, criteria such as size, weight, noise-cancellation and other concerns should trump sheer sound quality.

For us, the sheer bulk of the Clear precludes it from use in transit so we judged it solely by the criteria of an audiophile listening in the home. Dutifully, however, we also used it with both a Huawei 10 smartphone and Pioneer XDP-100R digital player to confirm that both could provide satisfactory levels, which they did. Nevertheless, we have to wonder



ABOVE: Soft, padded dove-grey leather is all that touches your head and ears, the sumptuous material lining the adjustable, comfy headband and earcups, bellying its 450g weight

edge was slightly muted. The details weren't compromised, the attack was still crisp – only the nasties were well controlled.

VERDICT

Focal's Clear offers a fine balance between purist requirements, real-world considerations and a desire for something posh. The absence of harshness – and those wonderful cushions – means you can indulge in marathon listening sessions. ☺

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL at 1kHz for 1Vrms input)	112.8dB
Impedance modulus minimum & maximum (20Hz-20kHz)	59.2ohm @ 1.1kHz 320ohm @ 51Hz
Capsule matching (40Hz-10kHz)	±6.3dB
LF extension (-6dB ref. 200Hz)	<20Hz
Distortion 100Hz/1kHz (for 90dB SPL)	0.1% / <0.1%
Weight (inc cable and 0.25in connector)	492g



Open-backed, planar-magnetic circumaural headphone
Made by: International Audio Group, China
Supplied by: IAG Ltd, Cambs
Telephone: 01480 447700
Web: www.quad-hifi.co.uk; www.internationalaudiogroup.com
Price: £599

AUDIO
FILE

Quad ERA-1

One suspects that Quad – like B&W, KEF and so many other traditional British brands – saw the writing on the wall. And what did this say? ‘Headphones are now the only growth area in audio.’ That’s the reality check in the post-iPod era, and so the company has wisely chosen to deliver on it.

With its planar driver, the £599 ERA-1 pays homage to the speaker that put the Quad brand on the map (although it’s not an actual electrostatic à la Stax). This, however, is reasonable because it makes the ERA-1 able to work off just about any headphone socket, while obviating the need for an external energiser.

Quad’s debut model can easily fill the gap created by Oppo’s surprising decision to abandon audio product manufacture, a move that took the PM-1, 2 and 3 with it [HFN Jul ’14, Feb ’15 and Jul ’15]. Even so, there’s still no shortage of superb headphones in this heavily-contested segment, higher-priced models surviving because what

‘They are ‘phones that we feel qualify as “of monitoring standards”’

matters for many, alongside sound quality, is credibility, and who has longevity to better Quad’s? Nobody – that’s who.

At first glance, the ERA-1 is less reminiscent of the extremely ‘lozenge-shaped’ cans from Oppo and KEF, being more Audeze-like, if not quite truly circular – it’s an in-between shape that ensures a good, comfortable fit around the ear. There’s a choice of real sheepskin cushions with a smooth surface, and a synthetic, suede-like alternative.

In addition to the two sets of cushions, the massive, lavish case also contains a 2.15m Y-cable terminating in a 3.5mm stereo plug, with a screw-on 6.35mm (1/4in) adapter. The Y-cable also connects

to each cup with a 3.5mm plug, so aftermarket cables can be fitted easily if you are of that persuasion.

For review we used them partly with the Quad PA-One headphone amplifier [HFN Feb ’15] but mainly the new Luxman P-750u headphone amp [HFN Sep ’18]. The sound via the former was admittedly warmer, thanks to its all-tube nature, but marginally less analytical.

CRISP ‘N’ FAST

Our first impressions came from mono tracks – spatial concerns could wait. We turned to Sam The Sham & The Pharaohs’ *The MGM Singles* [Sundazed] for the honking sax, Sam’s nasal twang and incessant, smacking percussion. Instantly apparent was the breathtaking speed on offer, crisp transients being part-and-parcel of the appeal of a fast planar membrane.

On ‘Li’l Red Riding Hood’, with the tambourine that provides an almost martial pace throughout the song, the ERA-1 had the requisite amount of splash and effervescence for this instrument. It was more than enough of an indication of sonic authenticity to tell us that this headphone is clean and transparent, varying only in behaviour according to source – as it should be.

If you’ve only heard the theme music to BBC2’s *The Bridge* and the Choir Of Young Believers’ ‘Hollow Talk’ [*This Is For The White In Your Eyes*; Sony] on TV, you won’t know about the explosive, percussive segment that kicks in after three minutes. That opening section consists of a delicate, lone vocal and piano, reeking with dark atmosphere. Subtly, sneakily, instruments are added, and this occupies the head with a fullness one would be more likely to equate with a massive orchestra. Via the Quad ERA-1, the transparency



ABOVE: The ERA-1 is an over-ear design with reasonable adjustability to ensure a good fit. It comes with detachable Y-cable, a 3.5mm-to-1/4in adapter and both smooth leather and suede cushions

allowed us to focus on specific elements within it, and with great precision. That, put simply, is a sign of ‘phones that we feel qualify as ‘of monitoring standards’.

VERDICT

This is a superbly-conceived and nicely-finished product, undeniably a bargain. It’s easy to drive, free of fatigue induction, so Quad can be proud. No, it isn’t the dream fulfilment of ‘a pair of ESL-57s for the ears’, but it’s mighty close. ☺

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL at 1kHz for 1Vrms input)	114.5dB
Impedance modulus minimum & maximum (20Hz-20kHz)	20.0ohm @ 8.2kHz 20.4ohm @ 838Hz
Capsule matching (40Hz-10kHz)	±3.9dB
LF extension (-6dB ref. 200Hz)	<12Hz
Distortion 100Hz/1kHz (for 90dB SPL)	1.5% / <0.1%
Weight (inc cable and 0.25in adapter)	472g

AUDIO FILE

Open-back electrostatic headphone and DAC/energiser
Manufactured by: Sonoma Acoustics Ltd, Boulder, Colorado, USA
Supplied by: Sonoma Acoustics Ltd, Henley In Arden, UK
Telephone: 07720 555754
Web: www.sonomaacoustics.com
Price: £4995



Sonoma Acoustics M1

The idea of clamping electrostatics to your head has been with us for nearly 60 years. Stax unveiled its SR-1s in 1959, Koss following a decade later with the first US-made electrostatic designs, which weighed almost a kilogram!

Yet Sonoma says its £4995 M1 'phones/energiser system has a novel twist. This is in the form of the drivers used – the 'High Precision Electrostatic Laminate' transducers in the earpiece – and the associated drive electronics, the work of the UK's Warwick Audio Technologies.

The three-layer laminate diaphragm is just 15µm thick, its ultra-low moving mass required for 'speed' and high-frequency extension. Sonoma also claims

The headphones connect to the energiser/DAC using low-capacitance silver-plated oxygen-free cables. The energiser itself, its compact casework machined from aluminium, shows nothing more than a digital/analogue switch, volume control, indicator lamp and headphone output. The power switch is to the rear, aside an input for its offboard PSU.

Inputs are provided on a USB Type B connector for use with a computer, alongside coaxial S/PDIF, analogue RCAs and a 3.5mm socket to which portable devices can be connected. The processor also handles volume control setting, while the output stage uses discrete Class A FET amplification. Analogue inputs are digitised using a 384kHz/32-bit ADC from AKM, the processor handling digital inputs at up to 384kHz/32-bit and DSD128, the latter then transferred via DoP.

SWEET AND PURE
We opened critical listening with Tina Margareta Nilssen's *Appassionata* set of piano music by Beethoven, Grieg, et al [2L download]. Here we were struck by both the weight of the Steinway and its delicacy, plus the way its church acoustic added distant ambience without ever becoming intrusive. With the Sonoma M1 it sounded like a very real instrument in a remarkably convincing acoustic.

It rocks, too, with David Bowie's *Heroes* [HDtracks]. It's impressive how these headphones can punch out fast, crisp rhythms, while the bleak instrumental layers of the likes of 'Sense Of Doubt' are at once laid bare and entirely immersive. Most striking is the really rich and grumbling bass they deliver, and the

'It's impressive how these 'phones punch out fast, crisp rhythms'

better bass extension with minimised break-up modes for these diaphragms. The single-ended drive also simplifies the structure, reducing diffraction effects.

The company also claims the driver is both strong and reliable due to that laminate design, while tight pair-matching is also possible. The diaphragms are mounted on an open cell insulating spacer with a stainless steel grid behind the diaphragm. This design creates what the company describes as a series of very small 'drum skins' formed from the laminate diaphragm and the spacer, vibrating to create the sound when a 1.35kV DC bias voltage is applied.

Housing the drivers are injection-moulded magnesium ear-cups, while the ear-pads are made from Cabretta sheepskin. As for the headband, this is made from Nylon 12 for flexibility and damping.



ABOVE: The M1's ultra-light laminate diaphragm is supported across an open-cell spacer just visible inside the magnesium ear-cups while the headband is made from nylon

way this integrates completely with a midband that's forthright without ever becoming overly strident. The treble, too, is as remarkable for its extension and openness as it is for its sweetness and purity.

VERDICT

You've got to be pretty fanatical about your headphone listening to drop £5k on a pair of cans, but if you are and you do, then the Sonoma M1 will reward you with a sound of spine-tingling clarity and dynamic ability, allied to a spaciousness that makes almost any album an enthralling experience. ⌂

HI-FI NEWS SPECIFICATIONS

Capsule matching (40Hz-10kHz)	±3.9dB
LF extension (-6dB ref. 200Hz)	<20Hz
Distortion 100Hz/1kHz (for 90dB SPL)	0.2% / <0.1%
Weight (inc cable)	424g



New Flagship Integrated Amplifier

L-509x



"If you're looking for a one-stop amplification solution for a high-end stereo system, this Luxman is an excellent place to start."

What Hi-Fi, April 2018



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Hi-Fi News, January 2018



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1-3-1 Shin-Yokohama, Kouhoku-Ku, Yokohama 222-0033, Japan
Tel: 045 470 6991 Fax: 045 470 6997 www.luxman.com

AUDIO FILE

Five driver, three-way reflex-loaded floorstanding loudspeaker
Made by: B&W Group Ltd, West Sussex
Supplied by: B&W Group Ltd
Telephone: 0800 232 1513
Web: www.bowers-wilkins.co.uk
Price: £3299



B&W 702 S2

For this Series 700 speaker, B&W has used its new Continuum midrange cone (said to outperform its old Kevlar design in many ways) and included the 'tweeter-on-top' technology seen on the 800 series. This has the high frequency unit sitting in its own pod and decoupled from the cabinet. Meanwhile, the 25mm 'Carbon Dome' tweeter makes its world debut in the 700 series, which boasts clear subjective and measured performance gains over the outgoing aluminium double-dome unit. Indeed, B&W says it's the best tweeter it knows how to make, aside from the 800 series' Diamond dome.

In its machined aluminium housing it crosses over to a 150mm Continuum FST midrange driver that is also decoupled from the main box, and which features a tuned mass damper to suppress resonance. This mates to three 165mm Aerofoil Profile bass units

'The Carbon tweeter makes its world debut in B&W's 700 series'

bolted to the front baffle. They use paper rather than carbon fibre skins, with an EPS sandwich filling material. B&W claims a big uplift in bass performance compared to the outgoing CM series 2.

The cabinet is a conventional rectangular box, rather than the company's cost-no-object reverse-wrap affair with the augmented Matrix bracing system utilised in its 800 D3 [HFN Dec '15]. Nevertheless, it's very well finished at the price, and comes in a choice of Gloss Black, Satin White and Rosenut finishes. B&W also supplies a large base for extra stability.

Despite B&W's Flowport bass port being rear-mounted, the 702 S2 can be used 30cm or so from the rear wall and still turn in a balanced sound. There's a two-stage foam bung for placing the speakers closer

to the back wall, but when set more than a metre out the 702 S2 can begin to sound rather bass-light, so some experimentation is necessary.

TIGHT 'N' TAUT

There's a refreshing uniformity to the 702 S2's sound, the spaces between the notes proving clean and clear, with no smear or smudge. It's a tight, taut and accurate transducer and not one prone to coloration or artifice. David Sylvian's 'Buoy' [*Everything And Nothing*; Virgin] underlined this – the track has some powerful saxophone work and the speaker was able to carry it smoothly, yet convey the instrument's natural reedy timbre. The tambourine work showed the Carbon dome to be fast and was very explicitly etched.

The 702 S2's bass is impressive too, those three low frequency drivers together capable of shifting large amounts of air, although the presentation never sounds bottom-heavy. 4hero's 'Morning Child' [*Play With The Changes*; Raw Canvas Records] made this quite clear with its strong bass-guitar work and wide range of acoustic instruments further up the range. The 702 S2 served up a powerful bottom end, and even when the volume was advanced to pretty high levels it hung on in there.

Bernard Haitink's beautiful take on Vaughan Williams's Symphony No 2 [Warner Classics] revealed this loudspeaker's innate clarity and lack of coloration, as well as its general demeanour. The LPO came across with great scale and physical presence, the 702 S2 being able to deliver musical crescendos at high volumes without complaint.

VERDICT

Like an 804 D3 that's shrunk in the wash, the 702 S2 offers a tantalising taste of 800-series sound without spending serious money. If you want a powerful, detailed and spacious-sounding floorstander there's a great case to be made for it. ☺

RIGHT: Not unlike the old CM10 S2 in appearance, the 702 S2 has an improved cabinet, a 'tweeter-on-top' with carbon dome and three 'Aerofoil' bass drivers with variable thickness cones and pulp skins



HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	89.8dB/89.6dB/89.5dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	2.8ohm @ 118Hz 25.7ohm @ 58Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	-70° @ 70Hz 48° @ 1.4kHz
Pair matching/Resp. error (300Hz–20kHz)	±2.1dB/ ±4.4dB/±4.8dB
LF/HF extension (-6dB ref 200Hz/10kHz)	51Hz / >40kHz/>40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.4% / 0.1% / <0.1%
Dimensions (HWD) / Weight (each)	994x200x337mm / 30kg



Three-way standmount loudspeaker
Made by: ELAC Electroacoustic GmbH, Kiel, Germany
Supplied by: Hi-Fi Network
Telephone: 01285 643088
Web: www.elac.com; www.hifi-network.com
Price: £2600

AUDIO
FILE

ELAC Adante AS-61

Thanks to the arrival of Andrew Jones as chief engineer at ELAC, its £2600 Adante AS-61 incorporates two features associated with the golden '80s era at KEF when Jones was in residence. The first is a cone/dome coincident driver array (Uni-Q in KEF-speak) and the second is a bandpass enclosure, better known as coupled-cavity bass loading.

The former is made up of an aluminium alloy flared cone with a concentrically mounted 1in tweeter – a soft dome formed of coated silk fabric was felt more appropriate to this application than a conventional metal dome – allied to a 5.25in aluminium midrange unit. The first cone breakup mode occurs at about 6.5kHz, 1.7 octaves above the 2kHz crossover to the tweeter.

'Gershwin's opening clarinet glissando had a sweet, rich tone'

The bass 'driver' you see is in fact a passive cone, as the *real* 6.5in bass driver sits within the cabinet with a reflex port connecting the enclosed volume between the driver and ABR with that behind the driver. A second-order low-pass filter increases the upper slope of the bandpass response, at 200Hz, from second to fourth-order with no electrical filtering.

The AS-61 is available in walnut, gloss white or gloss black finishes. As the stand can have a significant impact on the speaker's sound quality, ELAC offers its partnering LS30 set for an extra £520.

DEPTH AND DRAMA

Given room to breathe, these compact speakers can really deliver the goods – namely a typically decisive and well-balanced sound. The whispered vocal on 'This

Woman's Work' by Kate Bush [*The Sensual World*; EMI] appeared warm and natural, and then gradually gained in power, building towards a hard-hitting note of despair.

The AS-61s proved very effective at revealing the intent behind this music, and in Muse's 'The 2nd Law' [Warner Bros] – with the band in full symphonic rock mode – they coped well with the contrasting styles contained in this near 9m epic.

The opening swirl of strings was sharp and urgent, drawing the listener in as portentous, multi-layered harmonies entered the fray, adding to the sense of scale and drama. The AS-61s were not fazed, either, as the piece took its turn into rock, where the deep, electronic keyboards landed with real weight and power, the sound remaining well balanced and never overwhelming the lighter, faster percussion that skims across the surface.

Freddy Kempf's recording of Gershwin's *Rhapsody In Blue* [Bergen PO/Andrew Litton; BIS SACD 1940], is no less full of life and vigour. The AS-61s delivered the famous opening clarinet glissando with a sweet, rich tone and a relaxed rhythm that unwound like a lazy yawn, capturing the start of the new day in bustling New York City. The speakers revealed all the intricate detail in Kempf's piano runs, and then picked up the pace as the strident brass woke everything up, accompanied by a crystal-clear clash of cymbals.

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VERDICT

Don't be fooled by appearances because the AS-61 is a genuinely sophisticated speaker. Budgeting a little extra for its partnering stands is recommended as it allows the Adante to stand on its own two feet, so to speak, and deliver a precise and dramatic sound that belies its modest dimensions. Ⓜ



ABOVE: The AS-61 is shown here on ELAC's LS30 spiked stands. The bass driver sits behind the 8in passive unit seen on the front baffle. Above is the combined tweeter/mid unit

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	83.7dB/83.4dB/83.2dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.8ohm @ 95Hz 29.3ohm @ 33Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	-63° @ 66Hz 40° @ 20kHz
Pair matching/Resp. error (300Hz–20kHz)	±2.2dB/±3.3dB/±3.3dB
LF/HF extension (-6dB ref 200Hz/10kHz)	46Hz / 37.2kHz/24.6kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.5% / 0.2% / 0.5%
Dimensions (HWD) / Weight (each)	484x244x402mm / 16kg

AUDIO FILE

Floorstanding three-way loudspeaker
Manufactured by: Focal-JMLab, France
Supplied by: Focal-JMLab UK Ltd, Salisbury
Telephone: 0845 660 2680
Web: www.focal.com
Price: £6999



Focal Kanta N°2

First in a new range of compact loudspeakers, the Kanta N°2 combines a number of Focal's proprietary technologies in a more streamlined design that, perhaps, reflects a slight mellowing in the company's approach. It's intended to be a little easier on the eye, offering a softer look in which 'performance meets style'. However, the compact Kanta N°2 is still eye-catching, Focal having gone to town with a range of colours that would satisfy the most temperamental of interior designers.

The company has refined many of its existing components and technologies in order to avoid compromising performance with this smaller enclosure. Updating the inverted dome tweeter for its Utopia range, Focal's 27mm IAL3 tweeter employs IAL (Infinite Acoustic Loading) and IHL (Infinite Horn Loading) techniques to absorb

output from the bass drivers. The lower section of the cabinet also houses both front and rear ports to tune the bass response.

For the baffle, Focal's engineers developed a new form of inert, high-density polymer, which it claims is 70% denser than conventional MDF, as well as providing 25% greater damping and increased rigidity. Its angled profile – inspired by the Utopia and Sopra ranges – is intended to time-align the driver outputs.

BOWIE INSIGHTS

The Kanta N°2 offered tremendous insight into the deep, sad tones of David Bowie's 2016 'Blackstar' [Blackstar; ISO/Columbia]. There was a palpable feeling of impending doom in his sonorous tones, yet the percussion sounded taut and precise, with a whiplash crack like the ricochet of a bullet. The contrast between Bowie's mournful tones and the skittering percussion created a real sense of tension and unease.

With something a little more upbeat, the Kanta N°2 confidently balanced the changing moods and tempo of Björk's 'It's Oh So Quiet' [Post; One Little Indian]. There's a seductive lilting tone on the opening woodwind and the gently plucked double-bass, and Björk's softly whispering voice has a delicate warmth a world away from some of her more unearthly vocal gymnastics. But when the chorus kicked in, the Kanta N°2 stepped up a gear, and the blaring horns and jangling piano swung with an authentic '50s big band sound.

VERDICT

Focal says its Kanta N°2s are best suited to smaller rooms where they will produce an insightful sound. It has certainly met the challenge of maintaining bass performance despite the more restricted confines of its cabinet, while restyling should attract audiophiles intimidated by the visuals of its earlier speakers. ☺



ABOVE: The Kanta N°2 sits on a Zamac (metal alloy) stand, with adjustable spiked legs. Its curved baffle facilitates time alignment of the drivers – midrange sitting above the tweeter

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	89.2dB/89.3dB/89.1dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	2.9ohm @ 108Hz 50.8ohm @ 26Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	-74° @ 64Hz 49° @ 21Hz
Pair matching/Resp. error (300Hz–20kHz)	±0.9dB / ±3.1dB/±3.5dB
LF/HF extension (-6dB ref 200Hz/10kHz)	41Hz / >40kHz/>40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.1% / 0.2% / 0.1%
Dimensions (HWD) / Weight (each)	1118x321x477mm / 35kg



The new **Vitus Audio RI-101**

Reference Integrated Amplifier

State of the Art design. State of the Art performance.

Vitus Audio has long been the master of integrated amplifier design; the RI-100 that precedes this new model had been in production, essentially unchanged, for around 8 years. The new RI-101 incorporates many design changes behind the familiar aesthetics to lift the audio performance to a new height.

*RI-100 owners can have their amplifier factory upgraded to an RI-101 - please contact us for details.



New streaming board option

Ethernet port gives access via Vitus Audio app to streaming services, Internet Radio and local storage (e.g. Melco, NAS).

S/PDIF and AES digital inputs and wifi capability included.

To give even greater flexibility and convenience, as well as the existing onboard DAC option (USB, Toslink, AES, S/PDIF) there is now also a Streaming Board available, giving access to services such as Tidal, Qobuz, Spotify, Vtuner and Roon.

Hear the new RI-101 at one of our dealers -

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Rayleigh Hifi - Rayleigh

Studio AV - Chobham

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PJ Hifi - Guildford

Martins Hifi - Norwich

Audio Therapy - Newcastle

The Audiobarn - Old Harlow



Distributed by
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AUDIO FILE

Two-way standmount loudspeaker
Made by: Franco Serblin Studio, Vicenza, Italy
Supplied by: Absolute Sounds Ltd, UK
Telephone: 0045 9684 5100
Web: www.francoserblin.it; www.absolutesounds.com
Price: £7500



Franco Serblin Accordo

One of the late Franco Serblin's last designs, the Accordo is a petite two-way standmount, complete with a 740mm angled pedestal. It is sold in mirror-imaged pairs, in solid walnut for £7500 with the integral stands, or in high-gloss grey for an additional £300.

The Accordo was born of Franco's love for small speakers, 'for their discreet presence and for the "magic" which they often are able to recreate'. And it was designed with its uniquely shaped cabinet and a stand encasing the crossover network as the ultimate solution to avoid transducer interference.

With the Accordo, you immediately see the cabinet's extreme asymmetry, and this

'to achieve precise soundstaging, focus and depth of image'.

PERCUSSIVE THRILLS

We kicked off the sessions with the US pre-recorded tape of *Beatles VI* [Capitol] – the Americans' mash-up of *Beatles For Sale* and the UK version of *Help!*. What nailed us to our seats was a mere two drum beats at 30s seconds into 'Every Little Thing'. Stage right, a couple of hammerings of the tom-tom (or timpani?) delivered the percussive thrills we usually expect only of Kodo drums via some loony-tunes audiophile pressing. The authenticity was undeniable, confirmed by the more powerful percussive opening to 'What You're Doing'. And the vocals! So natural, so sibilance-free, so *in-the-room!* We could go on...

Instead we turned to a milestone album that was of dubious sonic worth. Yes, Derek & The Dominos' *Layla* has been 'audiophiled' to death despite its occasionally muddy, murky sound. While its stereo properties are beyond question, it takes something like the latest Mobile Fidelity 2LP version to peel away a layer of grunge.

What *Layla* did was provide a taste of – if not quite the final word on – the Accordo's ability to convey a sense of grandeur in direct opposition to its diminutive size. A wall of stereo sound filled the room, with every instrument enjoying its own turf, and with possibly the best front-to-back depth we've encountered this side of a Quad '57.

VERDICT

The Accordo is one of the most alluring speakers we have ever heard. It commandeers the term 'musical' and makes it its own. Only a bass addict might find them wanting. Forgive the melodrama, but this is a speaker 'to die for'. ☺

RIGHT: The elegantly-shaped cabinets are mirror images of each other and combine a 29mm silk-dome tweeter with a 150mm pulp-coned mid/bass unit. Not seen here, the Accordo's detachable 'grille' is composed of black elastic strands



'What nailed us to our seats was a mere couple of drum beats'

angularity ensures that set-up is achingly critical. The only speakers we can think of with as strict a positioning regime are Wilson's, sited to the centimetre, and, unsurprisingly, most Sonus fabers.

The sculpted looks are augmented by build quality of the highest order with an arch-shaped enclosure reinforced with a 'decoupling aluminium-magnesium component to obtain resonance control'. The grilles are made up of elastic strings, a concept directly descending from the original Sonus faber Guarneri, while the black columns sit on massive chrome bases to prevent them from tipping.

Inside the sleek cabinet is a 29mm silk-dome tweeter designed by Sonus faber co-founder Ragnar Lian, while a 150mm 'sliced paper' cone mid-woofer is custom-made and optimised to control break-up. The minimalist crossover is voiced

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	86.1dB/85.1dB/84.5dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	4.1ohm @ 192Hz 33.6ohm @ 2.4kHz
Impedance phase: minimum & maximum (20Hz–20kHz)	-48° @ 104Hz 52° @ 1.3kHz
Pair matching/Resp. error (300Hz–20kHz)	±1.3dB/ ±4.4dB/±3.9dB
LF/HF extension (–6dB ref 200Hz/10kHz)	62Hz / 33.2kHz/31.3kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	1.8% / 1.5% / 0.3%
Dimensions (HWD) / Weight (each)	360x190x360mm / 32kg



Six-driver, DSP-controlled active loudspeaker
Made by: Kii Audio, Bergisch Gladbach Germany
Supplied by: Sound Design Distribution Ltd, Cardiff, UK
Telephone: 0800 009 6213
Web: www.kiiaudio.com; www.sounddesigndistribution.co.uk
Price: £10,990-£12,480 (£995 stands)

AUDIO FILE

Kii Audio THREE

With the Kii THREE all you need is a music source, analogue or digital, and you have a complete audio system. At a price of £10,990 in its most basic form (£12,480 with controller, £13,475 with controller and stands) the Kii THREE packs a lot into its compact, cabinet and makes you wonder how many passive speakers at a similar price can possibly justify their cost.

On its front baffle there are two drivers, a 5in bass-mid unit and a 1in dome tweeter. The active part comprises four 6.5in bass drivers with dished black-anodised aluminium diaphragms, two located on the sides of the cabinet towards the front baffle, and two on the rear panel firing backwards.

Controlled by the onboard DSP, these four drivers radiate different signals to the sides and rear in such

that forms the back panel and flat panels on the cabinet top and bottom. Standard paint colours are high gloss white (or as here) graphite satin metallic. Custom colours can be specified in a choice of high gloss, matt or metallic finishes at a £1000 premium.

AUDIO DYNAMITE

This is a very fresh, open and detailed sounding DSP-governed/active speaker and one that sounds far larger than expected. It is able to deliver serious amounts of clean power into fairly large rooms.

Feed the THREE with a well-recorded modern jazz track, such as Herbie Hancock's 'The Sorcerer' [Speak Like A Child; Blue Note] and you are left in no uncertain terms as to its highly refined presentation. It takes the listener deep into the recording, unpeeling layer upon layer of detail. For example, the soaring sax showed the midband to be commendably smooth and devoid of coloration, while the hi-hat and ride cymbal work both enjoyed a silky, finely etched quality.

With Kraftwerk's 'Tour De France Étapes 1-3' [Tour De France; EMI Electrola] the THREE showed off its dizzying speed. Attack transients were excellent, especially across the midband and treble, with a plethora of detail rendered in super fast time.

Soundstaging, too, proved excellent. This is a modestly-sized standmount speaker, yet no one seems to have told it! However, it's important not expect it to do things for which it was never designed. This isn't a fluffy 'comfort blanket' of a loudspeaker that makes everything sound nice and easy.

VERDICT

The technology, connectivity, sound performance and amplification here set a standard for every 'system-in-a-speaker' to match. The fact that its inbuilt DSP also allows great flexibility in the placement of the THREE is a further bonus. Ⓜ

a way as to achieve – from 100Hz to 1kHz – a polar pattern similar to that of a cardioid microphone.

Each of the six drivers has its own Class D power amp: Ncore modules rated at 250W. Both analogue and digital inputs are provided via a slim connection and control panel under the two rear drivers. Note there are no unbalanced digital inputs (coaxial or optical) and no USB input either. Instead there are two RJ45 sockets for the KiiLink control system – one for Kii's controller, if used, and the other to daisy-chain to the second, slave speaker.

Beneath these, two rotary 'Boundary' and 'Contour' controls provide for frequency response tailoring. The former is to correct for LF boundary gain and the latter to tweak the tonal balance to taste.

The cabinets' front baffle and sides comprise a one-piece, U-shaped polyurethane moulding, closed by another shaped moulding



ABOVE: Behind the THREE two 6.5in woofers augment the forward bass output. An inset panel has analogue/digital input, Ethernet in/out and 'contour' and 'boundary' controls

HI-FI NEWS SPECIFICATIONS

Frequency response error (300Hz-20kHz)	±2.1dB / ±2.1dB
Pair matching (300Hz-20kHz)	±0.8dB
LF/HF extension (-6dB ref 200Hz/10kHz)	<20Hz / 37.2kHz/33.1kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	3.4% / 0.1% / 0.4%
Dimensions (HWD) / Weight (each)	400x200x400mm / 15kg

AUDIO FILE

Three-way isodynamic/ribbon floorstanding loudspeaker
Made by: Magnepan Inc., White Bear Lake, MN, USA
Supplied by: Decent Audio, Stockton-on-Tees
Telephone: 05602 054669
Web: www.magnepan.com; www.decentaudio.co.uk
Price: £18,995



Magnepan Magneplanar 20.7

Back in the 1980s, one of the most memorable imports into the UK was the Magneplanar isodynamic loudspeaker. The Minnesota-based company still has a strong reputation in the US, where, with spiralling high-end product prices, its offerings are now viewed as giant-killers. None more so than the 20.7 here, a giant itself at 79in (just over 2m) tall, which will set you back just under £19k a pair.

The 20.7 is a three-way design, with treble frequencies delivered by a full-height ribbon driver, set close to one edge of each speaker. As the 20.7 is supplied in mirror-image pairs, the user can opt to have the tweeters positioned towards either the outer or inner edges of the panels. Bass and midrange

After set-up, and auditioned with Constellation Taurus amplifiers [HFN Dec '17], the 20.7s delivered a seamless and exceptional expanse of sound from top to bottom.

It was eerie to hear Abba's 'Eagle' [*The Album*; Polydor] with a degree of transparency you don't get from conventional box speakers. Elements in the mix not always apparent became clear as day.

Similarly, Al Jarreau's cover of 'Summertime' [*Tenderness; Reprise*] gained new life. Suddenly everything was super taut with ultra-fast leading edges to the bass guitar and hi-hat cymbal work. The thick licks of keyboard, brilliantly syncopated with the percussion, really hurried things along and proved a lynchpin of the song.

As you'd expect from large panel speakers, their soundstaging was superb. The massed orchestral strings from Ryuichi Sakamoto's 'Theme From The Last Emperor' [Virgin] were rendered almost supernaturally large and three-dimensional.

Things were wonderfully immersive – the two panels projecting a vast wall of sound turning the room into a kind of giant pair of headphones.

We were even more impressed by the way it maintained the 'timing' of massed instruments. On the 808 State track 'Ancidia' from 90 [ZTT Japan], we were charmed by the way the cymbals on the right channel were playing off the tambourines on the left, where most speakers just deliver a blur completely obscuring this.

VERDICT

Most music lovers will be beguiled by this exceptional loudspeaker, but while the 20.7 avoids many problems of 'box' designs the big issue is whether you have a listening room large enough to accommodate it! But nothing else will sound quite the same. ☺

'The 20.7s turned the room into a giant pair of headphones'

frequencies are carried by two isodynamic panels each.

One of the advantages of isodynamic drivers is that they have almost resistive impedance, which as well as rendering them easier to drive makes crossover design significantly simpler. Our lab tests suggest that the bass-mid crossover is around 460Hz, while crossover to the tweeter appears to be at around 3.5kHz.

Bi/tri-wiring and bi/tri-amping are not possible. But resistive attenuators can be fitted to the midrange and tweeter sections to adjust tonal balance.

EERIE TRANSPARENCY

As with any dipole speaker, the 20.7 radiates the same intensity of sound backwards as forwards, posing different challenges for room placement than unipolar speakers.



ABOVE: Available with a natural oak, dark cherry or black frame (or with silver, black, or gloss red aluminium trims), the panels and ribbon are protected by a 'sock' grille

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	80.4dB/79.7dB/79.2dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	2.5ohm @ 451Hz 4.4ohm @ 30Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	-16° @ 232Hz 16° @ 20kHz
Pair matching/Resp. error (500Hz–20kHz)	±5.5dB / ±8.7dB/±9.7dB
LF/HF extension (–6dB ref 200Hz/10kHz)	– / >40kHz/>40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	<0.1% / 0.5% / See text
Dimensions (HWD) / Weight (each)	2007x737x52mm / 58kg



Two-and-a-half way bass reflex loudspeaker
Made by: Neat Acoustics Ltd, Co. Durham
Supplied by: Neat Acoustics Ltd
Telephone: 01833 631021
Web: www.neatacoustics.com
Price: £3495

AUDIO
FILE

Neat Acoustics Iota Xplorer

One of the best sounds at Bristol's Sound & Vision Show [HFN Apr '18] came from these latest arrivals from Neat Acoustics. Driven by modest amplification in a small room, they made you want to just stay and listen some more. The Iota Xplorers are the new model in a range that began with the tiny original lotas some seven years ago, and while they draw on the same principles, the newcomers are very decidedly grown-up despite standing just 780mm tall on their polished conical spikes.

Priced at £3495 a pair, the speakers come in natural or black oak, American walnut or Satin White, with grilles in colours either subtle or bright as an optional extra. Just as the Iota Alpha model [HFN

'They pound out the bass lines with both precision and speed'

Oct '16] built on the success of the original lotas by tilting their boxes atop a small floorstanding cabinet containing a downward-firing bass unit, so the new Xplorer model takes a further step up.

It's designed on a grander scale, and has a pair of Neat's P1-R2 170mm bass drivers in isobaric configuration in the floorstanding column. Just as the top section, with its ribbon tweeter beside a mid/upper bass driver, is a design tried and tested in its previous Iota models, so the isobaric principle is a familiar one for the company.

The upper section is partitioned off from the 'bass column', and both enclosures are themselves sealed boxes. The drivers in the 'head' include Neat's 170mm P1-R3 mid/bass unit, which uses a treated paper cone with a flared profile and an aluminium phase plug, partnered

with a Heil Air Motion Transformer tweeter, which has a pleated Mylar diaphragm with aluminium strips.

FLOATING IN THE AIR

What's remarkable about these speakers is that they cast a soundstage that seems to float 'out of the box' but with a fine sense of presence. Notable, too, is the fine 'ear' these speakers have for instrumental timbres.

And while the Iota Xplorers certainly sound both wide-open and sweet, they can also deliver plenty of low-end thunder when driven well, and can turn on the snarl when the music requires it. Play Avicii's *Wake Me Up* [PRMD/Universal] and they pound out the bass lines with precision and speed while still keeping the vocals and instrumentation clear in the mix. The same is true with the fascinating jazz/dub/electro fusion of Nils Petter Molvaer and Sly & Robbie on their *Nordub* set [Okeh; 96kHz/24-bit]. The combination of a slinky rhythm section, silky trumpet and all kinds of electronica could be designed to keep a pair of speakers on its toes. That's just how the Iota Xplorers play it, with a deep, immersive soundstage, gutsy bass and those tripping rhythms crisply rendered.

They're just as impressive with some good old vintage rock and we had a blast picking our way through Deep Purple's 3CD *Platinum Collection* [EMI] in all its slightly grimy glory. The 1997 remaster of 'Highway Star' with a Mark Levinson power amp driving the speakers was nothing short of hilarious fun.

VERDICT

The Xplorers are a successful continuation of the Iota line, with plenty of welly and control in the bass and an almost magical ability to cast a soundstage image well outside their compact boxes. ☺



ABOVE: The tilted, sealed upper section hosts an AMT tweeter and 170mm mid/bass unit, on midrange duty. Two 170mm bass units form a downward-firing isobaric 'sub'

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	92.1dB/89.6dB/89.0dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	4.3ohm @ 20Hz 39.3ohm @ 1.9kHz
Impedance phase: minimum & maximum (20Hz–20kHz)	-55° @ 3.8kHz 45° @ 814Hz
Pair matching/Resp. error (300Hz–20kHz)	±1.7dB / ±5.1dB/±5.6dB
LF/HF extension (–6dB ref 200Hz/10kHz)	75Hz / 19.5kHz/19.1kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	1.3% / 0.2% / 0.1%
Dimensions (HWD) / Weight (each)	740x299x220mm / 18kg

AUDIO FILE

Three-way floorstanding loudspeaker
Made by: Raidho Acoustics (Dantax Radio A/S), Denmark
Supplied by: Decent Audio, Stockton-on-Tees
Telephone: 05602 054669
Web: www.raidho.dk; www.decentaudio.co.uk
Price: £37,995-£41,995



Raidho D-2.1

This is a price level where designers spread their wings and fly. At £38k the D-2.1 sits in the middle of Raidho's flagship range and has a narrow-baffle cabinet that's beautifully constructed. Even in its standard black finish it's stylish enough to grace the world's luxury riverside apartments, though it can be had in other specified colours, with walnut adding £4k to the cost.

The D-2.1 sports Raidho's proven ribbon tweeter, which has many advantages over conventional dome HF units, primarily speed. In our view the 'Raidho sound' is defined by this tweeter. Below 3kHz it hands over to a 115mm mid/bass driver with a 'Diamond' coating for improved transient response and reduced distortion. Then, at 150Hz, the lower Diamond bass driver takes over, vented via rear-facing ports in the spine of the cabinet.

'You're wowed by the amazing speed of the hard-struck guitar'

Raidho says the D-2.1 has been reworked internally to assist airflow and reflex loading, with port noise reduced thanks to a special foam inlet that surrounds the port tube. The rear baffle has also been changed, with aerofoils applied to the ports to reduce turbulence.

Raidho claims a sensitivity of 89dB, although in practice it seemed to need a power amplifier with real heft. We used the Constellation Taurus Stereo [HFN Dec '17] for listening. Positioning required trial and error before everything made musical sense as the tweeter appeared to be more directional than most.

FAST AND CRISP

Cue up Grant Green's beautiful 'Ease Back' [*Carryin' On*; Blue Note] and you're wowed by the amazing speed of the hard-struck guitar. The sound zings around the room faster

than a bullet, even though the overall balance is very slightly dull – the presence region and lower treble are slightly recessed with the D-2.1. Despite this, the midband really does have great clarity.

ABC's 'Date Stamp' [*The Lexicon Of Love*; Mercury] proved an arresting listen. We found the more time we spent, the more there was to hear. Keyboard overlays were easy to discern, while individual instrumental parts started and stopped with surgical precision. The same held true for Gregory Isaacs' 'Night Nurse' [Island Records], every strand of the mix being laid out on a plate to reveal bass guitar, bass drum, keyboard, snare, hi-hat, ride cymbal and maracas.

There was a lovely timbre to the track's analogue synth noodles and glides, too, often hidden by lesser loudspeakers. Vocals had a purity that could seem spookily realistic. Other details, such as the exquisitely fast, filigree detailing on the hi-hats was very satisfying, while the D-2.1's inherent smoothness ensured recordings such as The Beatmasters' 'Rok Da House' [*Anywayawanna*; Rhythm King Records] – often a little uncouth with other loudspeakers – fell into place beautifully.

The bass proved highly propulsive, integrating very well with mid and treble. Our Beatmasters track showed it to be fast, firm and crisp, with no tendency to lag. We loved the way the bass synthesiser line syncopated with the electric piano track, playing on and off the beat in a James Brown kind of way. Things were so fast and propulsive that the song almost sounded as if it had been speeded up.

VERDICT

The Raidho D-2.1 is a highly enjoyable and sophisticated-sounding floorstander, with its own unique character. For this reason alone it warrants an extended audition before taking the plunge. ☺



ABOVE: Supported on a base with stabilising outriggers, the curved cabinet/alloy baffle houses a sealed isodynamic/ribbon tweeter, and 115mm 'Diamond' mid and bass drivers

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	84.8dB/83.0dB/81.5dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.7ohm @ 146Hz 15.9ohm @ 3.1kHz
Impedance phase: minimum & maximum (20Hz–20kHz)	-18° @ 6.1kHz 34° @ 968Hz
Pair matching/Resp. error (300Hz–20kHz)	±1.9dB / ±6.0dB/±6.7dB
LF/HF extension (-6dB ref 200Hz/10kHz)	37Hz / >40kHz/>40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.9% / <0.1% / 0.3%
Dimensions (HWD) / Weight (each)	1055x200x520mm / 44kg



The Classic

To celebrate the 25th anniversary of Pro-Ject Audio Systems, we decided to combine traditional design with modern technology in a brand new turntable model. This resulted in 'The Classic', which uses a frame design inspired by turntables from the 1950's and 60's, but implemented with our innovative technologies inside.

The award-winning turntable has astounded audiophiles worldwide, and is the perfect addition to any modern home. The Classic's wooden chassis is available in three matte finishes; walnut, rosenut and eucalyptus.



Three-and-a-half way floorstanding loudspeaker
Made by: Sonus faber SpA (Fine Sounds Group), Italy
Supplied by: Absolute Sounds Ltd
Telephone: 0208 971 3909
Web: www.sonusfaber.com; www.absolutesounds.com
Price: £17,998



Sonus faber Serafino Tradition

In recent years Sonus faber has significantly raised the bar when it comes to the sonic performance of its speakers and the Serafino is no exception. As for looks, it's the embodiment of the Italian aesthetic of *la bella figura*.

The woodwork is flawless, with deep colour, superb texture and an immaculate lacquer surfacing, coming in a Wengè finish with maple inlays, and in Red. This counterpoints with brushed aluminium in a choice of 'titanium' or black finishes respectively, with Sonus faber's traditional front baffle finished in coffee or black leather.

A large 3.5-way system, its vented box utilises para-aperiodic loading and has a striking rear

'The Serafino is able to shift vast amounts of air with utter ease'

end treatment – the back panel is an aluminium extrusion that forms both part of the speaker's exoskeleton and also part of its Stealth Ultraflex system. This sees the port ducts lined to reduce turbulence [see HFN Jun '15].

The drive units (all Sonus faber's own of course) include a 28mm silk dome tweeter, complete with a natural wood 'acoustic labyrinth' rear chamber. This crosses over to the midrange unit at 2.5kHz – a 150mm diameter design with a neodymium magnet system. At 250Hz the first of two Sonus faber woofers pitches in, both having 180mm cones made from a syntactic foam core between external surface skins of cellulose pulp. Then, at a low 80Hz, the second of these joins the party.

Sonus faber claims a sensitivity of 90dB and, alongside its 350W power handling rating, indicates the speaker is designed to go very loud!

But while you'll need a large-ish listening room for them it's worth knowing that their bass is readily 'tunable' by positioning.

POUND FOR POUND

Feed the Serafino a slice of classic pop music, such as Malcolm McLaren's 'House Of The Blue Danube' [*Waltz Darling; Epic*], and you are instantly struck by its ability to shift vast amounts of air with utter ease. This speaker is able to excavate from deep down, and pound out huge amounts of low frequency information, while its lens-like midband is highly focused – detailed yet delicate.

The midband isn't just excellent in two dimensions: this loudspeaker images extremely well in three!

Through the Serafino, Grant Green's late '60s jazz 'Ease Back' [*Carryin' On; Blue Note*] was writ large in our listening room, seemingly escaping through its boundary walls, midband focus

locating instruments accurately in space. The music sounded wonderfully vibrant and funky.

But this loudspeaker's true quality is perhaps most apparent with classical music. The opening movement of Mahler's Symphony No 9 [LSO/Gergiev; LSO Live] showed the Serafino's sublimely textured string sound playing with vibrant woodwind and brass.

Most striking of all, though, was the marvellously spacious recorded acoustic with its pinpoint imaging. The music was lilting and melodic, yet could really jump up and bite you with its dynamic power.

VERDICT

Sonus faber's immaculately finished Serafino proves to be a superlative loudspeaker. It's so impressive across such a wide range of performance parameters that it makes a potent case for itself against many price rivals. Ⓛ



ABOVE: Alloy outriggers improve cabinet stability for the Sonus faber Serafino, which can be bi-wired/amped. There are three rear ports and these allow low frequency tuning

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	91.5dB/89.6dB/88.8dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.0ohm @ 151Hz 10.2ohm @ 2.5kHz
Impedance phase: minimum & maximum (20Hz–20kHz)	-28° @ 30Hz 30° @ 353Hz
Pair matching/Resp. error (300Hz–20kHz)	±0.6dB / ±4.3dB/±4.5dB
LF/HF extension (-6dB ref 200Hz/10kHz)	48Hz / 32.5kHz/34.4kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.7% / 0.2% / 0.5%
Dimensions (HWD) / Weight (each)	1091x396x485mm / 52kg



Two-way standmount/bookshelf loudspeaker
Made by: IAG Ltd, Shenzhen, China
Supplied by: International Audio Group Ltd
Telephone: 01480 447700
Web: www.wharfedale.co.uk; www.internationalaudiogroup.com
Price: £270

AUDIO
FILE

Wharfedale Diamond 11.1

Far removed from the simple little Wharfedale Diamond that appeared 32 years ago, the Diamond 11.1 nonetheless has the same intention. And that's to be an affordable speaker able to deliver a fulfilling musical experience.

It has the company's new 25mm textile soft-dome tweeter, using what's described as an 'oversized' ceramic magnet assembly, a copper cap for flux control and a fibre-filled chamber behind the driver for damping rearward radiation. This design takes the tweeter's resonant frequency down below 800Hz, increasing linearity through the operating range while also allowing the driver to make a contribution to the speaker's midband output.

The Diamond 11.1's woven Kevlar mid/bass driver is a 130mm unit with a progressive suspension system combining a lightweight foamed surround and a long-throw voice coil. A hefty magnet

'Its focus is remarkable, as is its delicacy allied to realistic dynamics'

is employed in its motor and the chassis has a ribbed design for extra rigidity and strength.

Tuning for the bass section is provided by Wharfedale's distributed port. This uses a vertical tube, flared at both ends to promote airflow and avoid 'chuffing', to feed a slot aperture at the base of the cabinet.

Completing the package is a curved-wall cabinet, 31cm tall and comprising a multi-layer sandwich of different wood derivatives, braced at critical points, and filled with a fibre lining for suppression of resonances. Finishes are black, white, walnut or rosewood and good quality single-wire terminals

are fitted. The grilles have hidden magnetic fixings should you wish to remove them.

POLED DIAMOND

The slot-loaded port of the Diamond 11.1 allows the speakers to be used close to a rear wall, and we'd suggest that such a position is optimal. The speakers gain a bit of richness and warmth when so positioned on a pair of substantial stands.

Thus installed, the Diamond 11.1s impress with a sound that's a marked step up from any expectations raised by the pricing. They are sophisticated sounding, with good integration between the drivers and a presentation that's as lively as it's refined.

Imaging is a strong point here, the Diamonds doing a fine job of balancing solo piano and orchestra on the recent recording of Rachmaninov's Piano Concerto No 2, with Boris Giltburg/RNSO [Naxos], while recreating a credible concert-hall setting. Switch to the solo performances of Abba's Benny Andersson on his *Piano* album [DG; 96kHz/24-bit] and the focus is

remarkable, as are the realistic dynamics of Andersson's instrument, recorded close-up and with every detail there in the hi-res files.

They crash out the swagger of Van the Man's *Roll With The Punches* [Exile Productions], with its Chicago blues feel, while giving good insight into the slightly sibilant vocals and handling the more downbeat tracks in easygoing fashion. Yes, they're slightly lightweight with the Hans Zimmer score for *Dunkirk* [Water Tower Music/Sony Classical], but then Zimmer's music has a habit of putting a lot of pressure on the bass drivers of any speaker!

That said, while Zimmer's 'Supermarine' is no Walton 'Spitfire



'Prelude and Fugue', it sounds both dramatic and punchy through the little Diamond 11.1s, and the crisp attack and imaging is solid and reliable, making the inner details of the scoring easy to follow.

VERDICT

A long-running design revamped for the modern age, the Diamond 11.1 speaker, provided it's positioned with care, delivers striking imaging and fluency and possesses a tight, well-controlled bass. Ⓛ

ABOVE: The latest Diamond range marks a return to curved cabinets, the 11.1 (litre) model housing a 130mm woven Kevlar bass/mid driver and 25mm textile dome tweeter

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	87.8dB/87.0dB/86.5dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.5ohm @ 284Hz 21.0ohm @ 87Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	-50° @ 125Hz 47° @ 875Hz
Pair matching/Resp. error (300Hz–20kHz)	±1.5dB/±3.2dB/±2.3dB
LF/HF extension (-6dB ref 200Hz/10kHz)	87Hz / 30.0kHz/38.0kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	2.1% / 0.4% / 0.3%
Dimensions (HWD) / Weight (each)	310x194x285mm / 6.8kg

AUDIO FILE

Three-way, six-driver floorstanding loudspeaker
Made by: Coherent Acoustic Systems, Pinetown, South Africa
Supplied by: Vivid Audio Ltd, West Sussex, UK
Telephone: 01403 713125
Web: www.vividaudio.com
Price: £21,000



Vivid Audio Kaya 90

Nobody is going to describe Vivid's new Kaya range as conventional or conservative in appearance, but the styling is a little toned down from the banana-coloured Giya G1 Spirit [HFN Jan '18]. The £21k floorstanding Kaya 90 is a six-driver/three-way design with four side-mounted 125mm woofers toward the bottom of the cabinet. Near the top is a forward-firing 100mm cone/dome midrange unit with a 26mm dome tweeter housed just above it.

All six drivers have aluminium alloy diaphragms and benefit from the use of exponentially tapered tube absorbers that dissipate rear radiation from the drive units to suppress internal cabinet reflection and resonance. The

Pepper Meets The Rhythm Section; Original Jazz Classics] the lead sax was beautifully carried. Dripping with harmonic detail, it sounded breathy yet finely textured and with a natural rawness. The ride cymbal work had a lovely metallic sheen and snare drums a natural thwack.

When it comes to bass, Vivid's designer, Laurence Dickie, has obviously gone for evenness and extension over bluster. So the result is a very controlled and well damped bottom end that doesn't present itself in a particularly muscular or imposing way.

With our Constellation Taurus power amp [HFN Dec '17] this loudspeaker 'owned the room'. Objects appeared in the stereo mix clearly focused and correctly located. It shone with Mahler's Symphony No 4 [Budapest Festival Orch/Iván Fischer; Channel Classics], amazing us with a truly '3D' rendering of the orchestra, with excellent stage depth and a real sensation of being immersed in the musical event. Individual solo instruments such as flutes or oboes were etched in space with obvious precision, allowing us to effortlessly pinpoint them in the auditorium.

The wiriness of the violins, the rasp of the trombones and the reedy shimmer of the flutes were all a joy to behold. Hearing right back to the rear walls of the hall, there was a marvellous sense of space too – thanks in no small part to the excellence of the Kaya 90's extended and open treble.

VERDICT

Striking looking, beautifully engineered and possessed of a wonderfully open and engaging sound, the new Kaya 90 is hard not to like. It is recognisably a Vivid loudspeaker, yet moves things on with aesthetics that blend into a wider variety of rooms. □

'Pepper's saxophone was breathy and had a natural rawness'

tweeter is recessed within a shallow waveguide to match its directivity to the midrange unit at crossover.

Meanwhile, the moulded and braced composite cabinet has glassfibre/vinyl ester resin skins either side of a polymer foam core. Standard colours are Oyster Matte [as here], Pearl White or Piano Black, while custom automotive finishes come at a £2100 premium.

SMOOTH CUSTOMER

In common with bigger 'Vivids' the Kaya 90 has a seamless sound that is tonally 'well lit' but also deliciously smooth and refined. It has a large soundstage that goes far wide and far back, without pushing the sound down your throat. It has deep extended bass, and sparkling highs – best of all, it is fun to hear.

With Art Pepper's 'You'd Be So Nice To Come Home To' [Art



ABOVE: The visual impact of the '90 is less extreme than with earlier Vivids. Its crossover is accessed via a single rear pair of 4mm terminals – so no bi-wiring or bi-amping is possible

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	90.8dB/90.4dB/90.2dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	2.4ohm @ 264Hz 27.5ohm @ 21Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	-60° @ 48Hz 48° @ 343Hz
Pair matching/Resp. error (500Hz–20kHz)	±1.2dB / ±2.8dB/±2.6dB
LF/HF extension (-6dB ref 200Hz/10kHz)	39Hz / >40kHz/>40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.2% / 0.2% / 0.1%
Dimensions (HWD) / Weight (each)	1210x350x520mm / 25kg

DS Audio Optical Cartridges



Cartridges clockwise from top left: DS-002, DS-W2, DS Master1. Phono equalisers from left to right: DS-002, DS-W2, DS Master1

These cartridges work on a completely different principle to conventional MM or MC cartridges. Instead of a signal generated by electromagnetic force the optical cartridge uses a beam of light to detect the stylus motion.

By eliminating the friction force created by electromagnetic inductance, the optical cartridge has a much faster response to the LP groove modulations.

Removing the mass of magnets or coils, and by using tiny optical parts, the optical system resolves the smallest stylus motions with greater accuracy. Music is reproduced more correctly, nuances and the finest details revealed more easily.

Optical cartridges generate signals purely based on the shape of the recorded groove and are more linear across the frequency range. Because of this technical advantage, a simpler and cleaner circuit can be used to process the RIAA conversion.

All parts hand-made in Japan using rigid aluminium construction and highest quality diamonds, cantilevers and electronic components.

Three models in the range each with its own dedicated phono equaliser.

DS Master 1 'Writing a new chapter in the history of Analog Music'

DS-W2 Recipient of 'The World's Best Cartridge' award.

DS-002 'Clean, yet sweet, precise in imaging and grand in scale'

AUDIO FILE

Desktop/bookshelf two-way loudspeaker
Made by: Wilson Audio Specialties, Utah, USA
Supplied by: Absolute Sounds Ltd
Telephone: 0208 971 3909
Web: www.wilsonaudio.com; www.absolutesounds.com
Price: £10,998



Wilson Audio TuneTot

With Daryl Wilson now responsible for design with the passing of his father this year, the release of the £11,000 TuneTot echoes the small WATT (before the Puppy woofer system was developed) but is even smaller, and is designed to be used on sideboards, shelves and even desks. Daryl also says 'The TuneTot can perform very well on a stand'.

Flexible and customisable, the TuneTot is offered with a series of optional accessories. These include ISOBase platforms at £2398/pr, TuneTot Rings at £698/pr and the TuneTot Grilles – available in six colours – for £335/pr.

The full set, then, is £14,429, but we would suggest that the ISOBases, where you can set the

'They won't shake or rattle, but will rock as loud as you like'

slope of the speakers, are the essential add-ons. As with all Wilson speakers, positioning is critical, and the manual guides you through near-field monitoring, with both the toe-in and the front-to-back slope addressed in detail.

The cabinets are made from the company's proprietary, ultra-vibration-resistant 'X-material' and 'S-material' composites and are effectively resonance-free. They are superbly finished and available in five new 'WilsonGloss' colours specific to this speaker – Quartz, Teak, Ivory, Carbon and Crimson.

At the front is a 5.75in mid/bass driver and 1in tweeter, benefiting from an asymmetric enclosure with no two internal surfaces being parallel. The aim is to eradicate what the company identifies as any 'sonically deleterious internal reflections'. At the back is a slotted

port – tuning plugs are supplied for this – and a single pair of multi-way 4mm binding posts.

TUNED UP

These are genuine Wilsons through-and-through, the real deal, and our initial impression was of an LS3/5A-on-steroids. They're not going to shake your windows and rattle your walls with bass, though they will rock as loud as you like.

With the massive sound of Mountain played live and loud, via Vol 2 of 'The Official Live Bootleg Series' [Voiceprint], the sense of the Shepherd's Bush Empire was conveyed with atmosphere going beyond the boundaries of speakers a mere metre from each ear.

Then using them on the far wall 'Crossroads' acquired a huge increase in low-level information, the percussion beefed up with added weight, the bass guitar easier to follow. 'Nantucket Sleighride' was filled with fuzz-tone guitar and crisp cymbals and growling bass, yet all the textures co-existed with a cohesiveness almost redolent of a full-range electrostatic speaker.

If Mountain was simply an exercise in volume and power, the real worth of the TuneTots was better communicated by their sheer finesse and lack of aggression. We assessed these qualities with Clare Teal's *A Tribute To Ella Fitzgerald* [Chasing the Dragon] – an audiophile-grade recording that actually has musical merit.

With brassy big-band backing and perfectly recorded vocals, this CD presents eight standards with a silky, sexy glow. With the TuneTots having just been abused by Leslie West's scorching guitar, this was an opportunity to hear them being caressed. 'Shimmering' – that's the first word that came to mind, the vocals and the sound of the Syd Lawrence Orchestra emanating with



a gossamer feel. The soundstage was huge, but Teal's voice never sounded hyper-etched while the brass attacked without artifice. It was all punchy notes, hot transients, and smooth decay.

VERDICT

Wilson Audio has come up with a mini-monitor that delivers 90% of the Wilson full range experience from 10% of the volume. If you want a no-compromise speaker smaller than a microwave oven, say hello to the TuneTots. ☺

ABOVE: Sitting on the matching ISOBase and with mid/bass driver 'Rings' fitted the TuneTot is seen here in Ivory – one of five new 'WilsonGloss' colour finishes

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	84.6dB / 83.3dB / 82.6dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	6.7ohm @ 174Hz 66.6ohm @ 68Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	-60° @ 80Hz 50° @ 56Hz
Pair matching/Resp. error (200Hz–20kHz)	±0.8dB/ ±5.6dB/±5.9dB
LF/HF extension (-6dB ref 200Hz/10kHz)	55Hz / >40kHz/>40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	1.1% / 0.7% / 0.3%
Dimensions (HWD) / Weight (each)	377x219x259mm / 13kg

ortofon

accuracy in sound



2M

The 2M Series, named after the abbreviation of Moving Magnet (MM) technology, is an affordable range of pick-up cartridges with first-class audio design principles throughout. Featuring Ortofon's trademarked split-pole pin technology for a flat frequency response, all 2M cartridges have a high output for easy integration into any turntable system.

Designed in conjunction with celebrated design house Møller-Jensen Innovation Design, the 2M Series body represents the shape of a diamond, whose contours gracefully trace the grooves on a record's surface.



Red Cartridges

A hugely popular all-purpose cartridge with a Tipped Elliptical stylus that delivers an open, dynamic sound with a slight touch of warmth.



Blue Cartridges

An affordable step up in the range, which adds greater dynamics, resolution and detailed sound thanks to the Nude Elliptical stylus.



Bronze Cartridges

Featuring a superior body, the Bronze picks up even the highest frequency information for a rich, detailed and deep soundstage, and can be further upgraded with ease.



Black Cartridges

The musician's choice and flagship of the range, the 2M Black features a Nude Shibata stylus which guarantees a true-to-life sound performance.



Distributed by Henley Audio

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AUDIO FILE

Factory-terminated loudspeaker cables
Made by: Furutech Co. Ltd, Tokyo, Japan
Supplied by: Sound Foundations, Berks
Telephone: 0118 981 4238
Web: www.adl-av.com; www.soundfoundations.co.uk
Price: £4995 (2.5m terminated stereo set)



Furutech NanoFlux

It's all about the copper in Furutech's cables. Even the geometry of this flagship NanoFlux design is fairly conventional, as is the multistrand conductor style and 'audio grade' PE (polyethylene) dielectric that binds it. The carbon-fibre sleeving of those bright, rhodium-plated plugs/spades and ferrite clamp certainly adds to the exquisite finish of these supremely well built cables, but it's what you can't see that really makes the difference – Furutech's proprietary 'Alpha Nano-Au-Ag OCC Pure Transmission Conductors'.

All metal parts in these cables and connectors benefit from Furutech's proven two-stage 'Alpha Process'. This begins with cryogenic cooling in either liquid nitrogen or helium to temperatures at or below -195°C. The cycle of cooling



surface is coated in a thin layer of a silver/gold colloid, a 'transmission enhancer' that Furutech describes as a Nano Liquid. As far back as the 1850s, chemist Michael Faraday was experimenting with optically-active gold colloids, but Furutech is using squalene oil for its suspension and is more interested in the lubricant's electrical properties as these nano-sized particles back-fill any microscopic imperfections in the copper surface.

On our lab bench these conductor, dielectric and geometric features all combined to deliver a low parallel capacitance, a moderate loop inductance and, thanks to the substantial multistrand gauge, a very low series resistance. Whatever else might be claimed for its NanoFlux cable, these parameters suggest great compatibility over long lengths.



LYRICAL LUXURY

Auditioned with B&W 800 D3s [HFN Oct '16] and both Devialet and Constellation Taurus amps [HFN Dec '17], Furutech's 4.5m lengths of NanoFlux cable laid the foundation

for an unassumingly detailed presentation. The broadest of musical soundscapes, including that sparked by 'Plastic Island' from Danish bassist Jasper Høiby's *Fellow Creatures* [96kHz/24-bit; Edition Records], spilled out into the room with an easiness

and gradual warming to room temperature relieves microscopic stresses in the OCC copper conductor's crystal structure, influencing both its mechanical and electrical properties. The next step involves a precisely-controlled demagnetisation using one of Sekiguchi's patented ring demagnetiser machines.

For these latest NanoFlux cables Furutech introduces yet another stage as the OCC conductor

ABOVE: The NanoFlux cable employs extensively treated OCC copper strands with an EMI-blocking ferrite and polished, nickel-plated copper bananas at the speaker end of the cable

that bordered on luxuriant. Mark Lockheart's sax rang clear while the piano and stick work had a percussive edge that was realistic sounding but not taxing, just as the tone of the instruments was colourful but not lush.

Where appropriate, music retained a huge punch – the low loop resistance ensuring the Devialet 800's output was undimmed – and so deep bass remained taut, crisp and extended. There's no wooliness here and neither is there any obvious artifice, just smooth and breezy detail delivered with the panache expected of the very best systems.

VERDICT

While Furutech's NanoFlux conductors may be coated in a silver/gold-infused lubricant, there's rather more science than snake oil at work here. The brand is not alone in employing cryogenics to treat its copper strands and connectors but is surely unique in its triumvirate of cryo, demagnetisation and nano-particle surface coatings. Gratifyingly, the sound quality it promotes is as refined as the processing, buffing your high-end system with a final polish. ☺

HFN SPECIFICATIONS

Series Inductance (1m loop)	0.63µH
Parallel Capacitance (1m)	86pF
Resistance (1m loop)	4.8mohm
Leakage	300Mohm
Power Loss (8ohm speaker)	0.0052dB/m



Factory-terminated loudspeaker cables
Made by: QED (Armour Home Electronics Ltd)
Supplied by: Armour Home Electronics Ltd, Herts
Telephone: 01279 501111
Web: www.qed.co.uk; www.armourhome.co.uk
Price: £1760 (5m stereo set, terminated in expanding 4mm plugs)

QED Supremus

What began with its 42-strand and 79-strand speaker cables has seen QED on a journey of discovery culminating 40 years later in this flagship Supremus offering. Closer in physical bulk and generally unwieldiness to a hawser than a speaker cable, QED's new top-of-the range wire has almost nothing in common with the figure-of-eight-shaped 79-strand cable that was in the vanguard of that early subjective revolution.

QED along with Monster and, latterly, AudioQuest kick-started a specialist cable industry that has since grown to global proportions, but the brand has always evolved its designs in line with thoroughly researched and, in our view, sensibly pragmatic engineering principles.

'A perfect solution for long cable runs, while not breaking the bank'

So the QED Supremus is mercifully free of snake oil...

A 2m stereo pair costs £860 (or £1760 for a 5m stereo pair), all terminated in either cold-welded Airloc² rhodium-plated 4mm speaker plugs or spades. Under that tightly constrained and semi-translucent bronze-coloured jacket, QED has deployed a symmetrical pair of conductors, gently twisted together with hollow polymer tubes to maintain

their shape and geometry. Each conductor comprises 16 5N-quality, cryogenically-treated copper strands that are silver-plated and then individually insulated from one another by a vanishingly thin enamel coating. These strands are then gently wrapped around a foamed (low-density) polyethylene (PE) core and given an insulating PE jacket.

QED's managed geometry and specification is borne out in the lab with its Supremus

providing a very low series resistance and parallel capacitance combined with a moderate loop inductance. If you can deal with the bulk, QED's Supremus is another in the short list of cables that's perfectly suited for long runs.

A SLAM DUNK

Deployed between our reference B&W 800 D3 floorstanders [HFN Oct '16] and Constellation Taurus Stereo power amplifier [HFN Dec '17], QED's

Supremus cable enabled a huge, and hugely impressive, sound to develop in the room. Bass possessed an unfettered slam while the twang of metal-stringed guitar and swift tap of percussion had a 'snap' that was both fresh and vital sounding. The exquisitely-recorded *Extra*

ABOVE: QED's flagship speaker cable is factory terminated in twist-to-lock Airloc² 4mm speaker plugs. The unwieldy nature of the cable places limits on connections in tight spaces

LEFT: Optional spade connector is fashioned from a rhodium-plated high purity beryllium/copper and bonded to the cable with an 'Airloc² cold weld' to exclude air

Time by the Jean-Paul Brodbeck Trio [Enja Yellowbird Records; YEB 77742] truly blossomed, as the punchy 'Rocka-Roas' showcased the interplay between piano, guitar and percussion. Indeed, whatever music was served up via our dCS Vivaldi One player [HFN Feb '18], this Supremus-equipped system penetrated through to the finest of details with no hint of harshness.

VERDICT

Physical flexibility is not the forte of the Supremus but, partnered with the lustiest of high current amplifiers and mightiest of floorstanding loudspeakers, it can assist in delivering a grand if not positively massive performance. With very low power loss across the audioband it's the perfect solution for high-end systems that need remote amplification and long cable runs, and all without breaking the bank. If you want your system to breathe free, try dosing it with QED's Supremus. Ⓛ

HFN SPECIFICATIONS

Series Inductance (1m loop)	0.52µH
Parallel Capacitance (1m)	49pF
Resistance (1m loop)	5.7mohm
Leakage	200Mohm
Power Loss (8ohm speaker)	0.0062dB/m



AUDIO FILE

Factory-terminated loudspeaker cables with filter network
Made by: Transparent Audio, Inc. Maine, USA
Supplied by: Absolute Sounds Ltd
Telephone: 0208 971 3909
Web: www.transparentcable.com; www.absolutesounds.com
Price: £4105/£4720/£5180 (8ft/12ft/15ft terminated stereo set)



Transparent Ultra

There's a very clear philosophy at work in all Transparent's cables: that 'wires' are unavoidable, so their bandwidth should be constrained to an appropriate range, banishing the egress of RF noise, and their lumped parameters – inductance, capacitance and resistance – be 'managed' to maintain a consistent and predictable performance regardless of the cable length. This, in a

'Plus' ranges below. The signal and return cores within the Ultra are twisted together and held tightly in place, their geometry fixed, by fillers (rods of high density polymer). Each core is comprised of a trio of conductors, these composed of six copper strands wound, in helical fashion, around an extruded polymer 'spine'. The low-pass filter network, operating at about 1MHz, is positioned near the speaker end of the cable; your choice of bar spade or plug terminations soldered into place.

On our lab bench these conductor, dielectric and geometric features had rather less influence on the cable's lumped parameters

than the in-line filter network which was surely the cause of its high parallel capacitance and medium/high loop inductance. Fortunately the conductor gauge is sufficiently generous that it maintains a very low series resistance, ensuring minimal power loss over 5m+ runs.



IT'S IN THE NAME

Auditioned between our B&W 800 D3 loudspeakers [HFN Oct '16] and Constellation Taurus Stereo power amp [HFN Dec '17], Transparent's Ultra cable stepped right out of the way. It served up a light, bright and vivid rendition of the music with acres of space and span. There's great agility to the way it handles rhythmic flow, seemingly getting right into the spaces between the notes, letting them start and stop with great poise.

'Sax and cymbals had more sparkle as a layer of "dirt" was wiped off'

nutshell, is the rationale behind the in-line filter network that's part-and-parcel of every Transparent cable.

The Ultra speaker cable featured here sits at the top of its Premium Series – its materials, geometry and filter design necessarily more sophisticated than the 'Super' and



ABOVE: Supplied as standard with bar spades, Transparent's Ultra can also be ordered with 4mm bananas or pins

Even with a relatively sedate, 'cocktail jazz' track like Al Jarreau's 'My Favourite Things' [Tenderness; Reprise Records], which is often as bland as bread, things jumped to life. Instead of a louche, laid-back amble through the song, the performance seemingly took on new life and urgency. A layer of 'dirt' was wiped from the midband – sax and cymbals had added sparkle, the piano gained lustre and shimmering harmonics while the female vocal had greater purity and power. Simultaneously, the accompanying instrumentation hung further back, lending greater space and proportion.

Annie Lennox's cover of Neil Young's 'Don't Let it Bring You Down' [Medusa; K2 HD] is a dense '90s work, yet this cable brought new subtlety, plus a sense of scale we'd not heard before.

It scythed through the complex tiers of electronics – all heavily compressed and packed up close – separating them out before stringing them back together again in a naturally coherent way. At the same time, the way her beautiful phrasing was carried was a joy, suddenly making her voice one of the most important percussive instruments in the mix.

VERDICT

High-end cables are often all show and no go, but that's certainly not the case here. The Ultra, by Transparent, is precisely that – revealing the music's inherent liveliness while retaining the butter smoothness of good recordings. Things assume greater scale and depth with this cable 'network', with a shinier and more extended treble and a natural translucency to the midband. On the basis of our tests, there's clearly much merit in Transparent's concept of cables acting as RF filters. ☺

HFN SPECIFICATIONS

Series Inductance (1m loop)	0.84µH
Parallel Capacitance (1m)	307pF
Resistance (1m loop)	9.1mohm
Leakage	10Mohm
Power Loss (8ohm speaker)	0.01dB/m



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Technics EPC-205CMK3

At the beginning of the 1970s, pick-ups typically muscled their way through the LP record groove at tracking forces of up to 5g, sometimes more. So the race was on to refine record players so they could be equipped with superior tonearms capable of tracking lower-mass cartridges having more compliant cantilever suspensions.

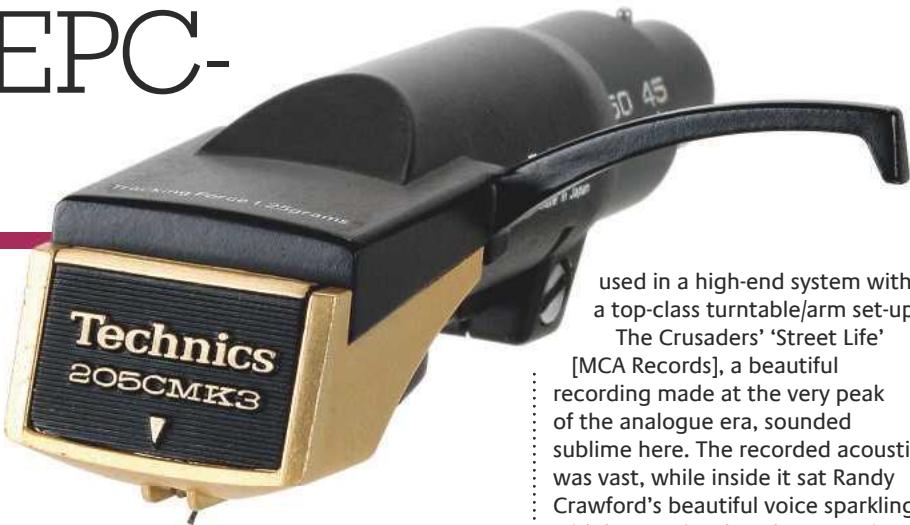
SME's Series III tonearm was one of the first arms optimised for low mass, higher compliance MMs and it caught the zeitgeist perfectly. The future, it seemed, would be ever lighter tonearms and cartridges, tracking at fractions of a gram for minimal record wear.

But by the time the Technics EPC-205CMK3 arrived in 1979, priced at £69, moving-coils had suddenly become all the rage, with magazines waxing lyrical about the breed's magical sound. So an

'The silky ride cymbals sounded like they were tinged in white gold'

MM became just something you bought before you could afford an MC. This explains why the Technics EPC-205CMK3 – indisputably a great pick-up – never really became the legend that it deserved to be.

In designing this cartridge, Technics' engineers had fixed their sights on making an extremely fast, clean and accurate MM. They believed the key to this was an ultra-responsive cantilever and highly effective suspension system. To this end, the new pick-up sported a stylus/cantilever/magnet with an effective moving mass of just 0.149mg, while the cantilever was fashioned from a single crystal boron pipe – a significant factor in combining both lightness with stiffness – with the stylus an



extended line contact/elliptical type with minor and major radii of 7µm and 20µm, respectively.

The disc-shaped moving-magnet was fashioned from a samarium-cobalt alloy and was stabilised by a single-point, back-tensioned pivot. Part of its suspension system was a special polymer compound claimed to maintain a stable frequency response, compliance and tracking ability over a wide range of ambient temperatures – Technics claiming a ruler-flat frequency response of 20Hz to 15kHz (-0.5dB) and an overall response of 5Hz right up to 80kHz.

Prospective purchasers of this cartridge could opt for the integrated headshell EPC-205CMK3 version reviewed here. To

deal with different tonearm lengths, both overhang and azimuth were adjustable and the screw clamping system made set-up easy.

Overall compliance for the cartridge was quoted at a moderate 12cu at 100Hz, with a claimed 2mV output voltage. Technics recommended the downforce be set at between 1.0-1.5g.

SWEET AND OPEN

We have always been struck by the clean, sweet, open character of this cartridge. In absolute terms, it's a little soft by modern standards, yet actually the more you listen, the more you hear that the detail is all there, it's just that it isn't rammed down your throat. Indeed this is a cartridge that really deserves to be

used in a high-end system with a top-class turntable/arm set-up.

The Crusaders' 'Street Life' [MCA Records], a beautiful recording made at the very peak of the analogue era, sounded sublime here. The recorded acoustic was vast, while inside it sat Randy Crawford's beautiful voice sparkling with harmonics that shone out in a vibrant and tangible way. And the presentation of her vocal boasted a fine intimacy and presence too.

Give it a rowdier recording, such as Blondie's 'Union City Blue' [Eat To The Beat; Chrysalis], and the cartridge errs on the side of politeness. But you still hear that great voice of Debbie Harry with all its fragile, icy beauty – plus all the thrash of the band, with those layered guitars and pan-rolling drums. Attention is drawn to the silkiness of the ride cymbals, which sound like they're tinged in white gold. You're left loving the bouncy, supple bass guitar line and the wonderful way that it stands forward from the rest of the mix, occupying its own space.

VERDICT

The Technics EPC-205CMK3 was one of the most technologically advanced MM cartridges of its decade and remains to this day a worthy choice. Its combination of refinement, detail and speed is still very special indeed. ☺

HI-FI NEWS SPECIFICATIONS

Generator type/weight	Moving-magnet / 16g (complete)
Recommended tracking force	1.0-1.3mN (1.3mN)
Sensitivity/balance (re. 5cm/sec)	1.70mV / 0.7dB
Compliance (vertical/lateral)	24cu / 22cu
Vertical tracking angle	22 degrees
L/R Tracking ability	70µm / 70µm
L/R Distortion (-8dB, 20Hz-20kHz)	1.4-5.2% / 0.70-7.2%
L/R Frequency resp. (20Hz-20kHz)	-3.6 to +0.6dB / -4.0 to +0.5dB
Stereo separation (1kHz / 20kHz)	28dB / 25dB



Sony PS-P7X

At the end of the 1970s Japan was introducing small, stackable hi-fi systems. Sony called its range 'Precise' and it included the PS-P7X here. A compact turntable designed to match the half-sized TA-P7F integrated amplifier and ST-P7J FM tuner, this £220 deck packed cutting-edge tech with fine build quality and great sound.

The fully automatic quartz-locked direct drive PS-P7X, with its beautiful cast alloy plinth, sculpted

'Most obvious was the clarity of the sound – its sheer precision'

top, microswitch-activated power cueing and a beautifully precise feel was a dramatic contrast to the sort of turntables Sony had been making only a few years earlier.

It raised the bar when it came to ergonomic, electronic and mechanical sophistication in a single and rather elegant package. Only the arrival of Compact Disc made it seem slightly cumbersome.

By the time the PS-P7X hit the shops in 1978, Sony had only been making mainstream direct-drive decks for five years – and only then towards the top of the company's large turntable range. Yet this had been sufficient for engineers to refine its brushless, slotless linear motor to a very high level. Here it offers a vanishingly low quoted wow and flutter figure of

0.025%. By the standards of the day this was staggering. This was down to Sony's excellent implementation of crystal-referenced speed control, which used a 'Magnedisc' tape head reading pulses on the inside edge of the platter. With this real-time reference, the speed control circuitry could govern the motor torque, keeping rotation constant.

The PS-P7X's plinth is a work of art too – a combination of Sony's Bulk Mould Compound for the chassis, allied to an elaborate aluminium diecasting. The whole assembly sits on adjustable, vibration absorbing fluid-filled rubber feet.

Careful attention to detail was paid to the positioning of the power supply and associated motor drive circuitry, and the result is a superb quoted signal-to-noise ratio of 75dB. The 310mm diecast aluminium alloy platter had a decent quality rubber mat that offers good record support, damping the platter down further.

Meanwhile, the partnering statically balanced J-shaped tonearm has an effective length of 216.5mm. It sports a beautiful matt metal finish to its zinc-alloy armbase, and a good quality locking aluminium headshell, permitting a cartridge weight range of 12g to 24.5g (with the addition of an extra counterbalance weight).

Tonearm lift/lower was power operated via 'feather-touch' controls, which must have seemed an amazing refinement at the time. Speed change was achieved by

pushing in the front-mounted LED speed display, which brightened to full intensity when the quartz-lock system engaged to run the platter at the correct speed.

CRISP AND CLEAR

We began by using Audio-Technica's VM530EN MM cartridge, but when it was clear the Sony PS-P7X was capable of fielding better, we fitted an Audio-Technica AT-33PTG/II MC. This done, the Sony PS-P7X turned in a really creditable performance. Most obvious was the crispness and clarity of the presentation, the sheer precision of the sound.

Yellow Magic Orchestra's 'Nice Age' [X∞Multiplies; Alfa] is a great – if rather quirky – slice of early electropop, beautifully recorded. The turntable homed right in on each strand of the mix, conveying how it played alongside all the others and its part in the overall mix. It didn't seem to waver depending on how dense the music became, remaining both focused and consistent. The Sony PS-P7X's pitch stability made listening to any type of music a pleasure.

The deck was also very good at focusing in on the spaces between the beats in rock music. REM's 'Talk About The Passion' [Murmur; IRS Records] was a case in point. The Sony PS-P7X allowed you to hear right into the musical groove – to where you could feel the sound of four talented musicians playing alongside, and off, one another.

VERDICT

Sony's PS-P7X shows just what was possible by the end of the 1970s. Crisp-sounding and clear, with an authoritative bass, this deck will reward over a wide musical range. And it's a doddle to use too. ☺

HI-FI NEWS SPECIFICATIONS

Turtable speed error at 33.33rpm	33.31rpm (-0.07%)
Time to audible stabilisation	2sec
Peak Wow/Flutter	0.03% / 0.04%
Rumble (silent groove, DIN B wtd)	-68.5dB
Rumble (through bearing, DIN B wtd)	-72.1dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-56.3dB
Power Consumption	9W
Dimensions (WHD) / Weight	430x110x350mm / 10kg

nucleus

by

roon

The best way to experience Roon. At any price.

Nucleus is the center of your Roon music system. It's the housekeeper, the traffic cop, and the brain that takes care of the music in your life. Using Nucleus, Roon manages all your music – on hard drives, NAS, and streaming content – and allows you to play it on all the audio devices around your home. Nucleus is the best way to run Roon, at any price.

Just plug Nucleus into your network, connect your hard drives, download Roon remote apps (iOS, Android, macOS, Windows) and you'll be ready to play music using a wide variety of audio devices, including AirPlay®, Sonos®, Roon Ready™, Devialet, KEF, Meridian, Squeezebox, and a huge variety of USB DACs.

Aside from being a powerful, fanless music server, what sets Nucleus apart is that it's powered by Roon OS – a fast and lightweight operating system optimized to do just one thing: browse and play music. Roon is a multi-room, multi-user networked audio platform built to the exacting standards of audiophiles, so it offers features like bit-perfect playback, DSD and PCM upsampling, multichannel playback, and signal path display.



- Manages your music stored on USB hard drives, NAS, and streamed content from TIDAL
- Runs Roon OS and is controlled by the Roon Remote apps for iPad, iPhone, macOS, Android, and Windows
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- Silent design with no fans or moving parts
- Requires a Roon subscription



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Creek CAS4040

It was the success of the NAD 3020 that encouraged Mike Creek to enter the market with his own amp, the CAS4040. Strong orders quickly followed and Creek Audio Systems scored a hit with its very first product.

Competing against units whose construction benefited from far greater economies of scale, the electronic design of the CAS4040 had to be particularly frugal. One result was that when using the line level inputs, the signal passed through a mere seven transistors per channel – quite a feat given the claimed 2x30W output power.

To simplify the design, a single rail supply was used in conjunction

Nevertheless, some early reviews noted that distortion levels were high. Adding a few extra components around the output transistors tamed the worst of this and this revision is present in most units found today. In fact the CAS4040 underwent quite a few changes over its six years.

Fit and finish comprised a simple vinyl-wrapped chipboard bonnet and a matt black fascia with screen-printed white legends forming the visible parts of the cabinet. The loudspeaker connections are recessed 4mm sockets, which means bare cables with suitable plugs need to be sourced. Inputs, meanwhile, are predominantly via 5-pin DIN sockets mounted directly on the PCB though the turntable inputs of our late review sample were RCAs, still PCB mounted. A small heatsink completed the rear aspect of the unit,

minimal cooling requirements being a key virtue of Class B operation.

There are no protection circuits or muting relays so switch-on is accompanied by a thump through the speakers. But noise and hum (electrical and mechanical) are well suppressed and the various knobs and switches work smoothly and predictably, even if the treble and bass controls have a limited range.

MUSICAL REALISM

The Creek CAS4040 at first sounds surprisingly plausible, the big bass lines it produces helping to avoid the impression of a 'small amplifier sound'. It plays strongly over a wide range of listening levels too. We would describe the overall tonal

balance as 'warm', with a little bit of injected treble sparkle.

However, some difficulties remained in trying to extract a quart's worth of sound from this pint pot. There appeared to be a lack of bass precision, with the lowest registers having a 'one note' quality. At times, a particular sound bloomed and became exaggerated, Katie Melua's 'Nine Million Bicycles' from *Piece By Piece* [Dramatico] revealing this effect.

Midrange clarity reached a high standard, though, and the overall impression of musical realism in this area was pleasing. Only at the top end did the problems begin to reappear, with the vocals on the Melua album sounding a tad hard.

However, material of a more processed nature played better to the CAS4040's strengths. With Level 42's 'Children Say' from *Running In The Family* [Polydor] that artificially heavy bass worked to the track's advantage. Fine vocal integration and sharp percussion rounded off a session that ran enjoyably right up to the album's end.

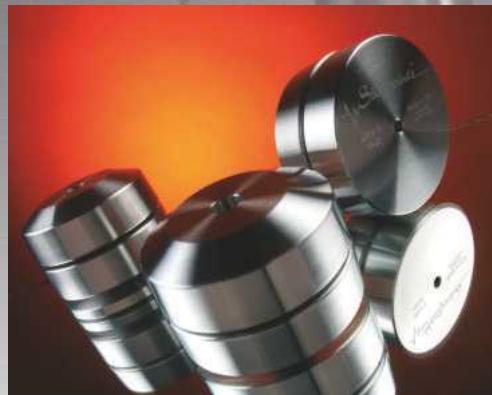
VERDICT

Seen as something of a giant-killer at its 1982 launch, the CAS4040 will be remembered fondly by the thousands for whom it represented their first taste of real hi-fi. Ⓛ

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	28W / 35W
Dynamic power (<1% THD, 8/4/2/1ohm)	39W / 58W / 75W / 95W
Output imp. (20Hz–20kHz/100kHz)	0.015–0.045ohm / 0.123ohm
Freq. resp. (20Hz–20kHz/100kHz, 0dBW)	+0.95dB to -0.45dB/-4.3dB
Input sensitivity (for 0dBW/25W)	16mV / 130mV
A-wtd S/N ratio (re. 0dBW/25W)	77.6dB / 91.6dB
Distortion (20Hz–20kHz, 10W/8ohm)	0.048–0.16%
Power consumption (idle/rated output)	5W / 98W
Dimensions (WHD) / Weight	420x60x185mm / 4.5kg

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Hitachi HA-7700

Introduced in 1979, Hitachi's HA-7700 integrated amplifier was said to be a synthesis of the company's previous HCA-7500 preamp and HMA-7500 power amp, condensed into a single, elegantly styled chassis. Selling for around £290, the HA-7700 was not a budget option, but boasted all the usual features and refinements found in a typical large Japanese hi-fi amplifier of the period.

These included dual mains transformers (one per channel), an extensive implementation of DC

its maximum output of 65W/8ohm (20Hz-20kHz) – an impressive result. In addition, MOSFETs allowed higher levels of bias in the output stages, moving their operation closer to the Class A ideal. The HA-7700 is therefore surprisingly hot-running.

The solid metal main controls and finish of the HA-7700 give the impression of luxurious quality and it is a very pleasing piece of equipment to operate. Inputs are predominantly high-quality RCA connectors, except for the second tape loop which has a DIN socket.

An external link fitted breaks the connection between the pre and power amplifier sections, while adjacent to this can be found a switch to select the input coupling mode for the power amp (DC or condenser coupled).

POWER IN RESERVE

It's in the bass that this amplifier reveals its main strengths, with large reserves of power. Tonally the HA-7700 is essentially neutral with a smooth and well defined treble without a hint of coarseness.

We tried it with Chris Rea's up-tempo *Road To Hell* [WEA], an album which really requires a system that is both powerful and capable of resolving the recording's underlying quality. The Cyrus CD8 SE 2 CD player used for the listening sessions made for such a set-up.

coupling throughout the signal path, the use of oversized reservoir capacitors in the power supply (4x12,000µF) and a built-in phono stage. This offered provision for MC as well as MM cartridges and included variable loading with sensibly chosen values.

The power amp saw the company's own power MOSFET (Metal Oxide Silicon Field Effect Transistor) devices used in its final stage, allowing a circuit to be realised that was powerful, durable and capable of excellent results, in part thanks to a simple layout.

The HA-7700 was specified as giving no more than 0.02% THD at

Going straight to Part 2 of the title track (doesn't everyone?), we were rewarded with the grumbling low bass kept firmly in check, allowing the melodic guitar lines to come over quite beautifully.

Raising the volume did not seem to degrade the overall sense of definition and the HA-7700 would seem to offer more than enough power for any domestic listening requirement. Also impressive was the contrast that the amp could generate. It's a quiet design, both electrically and mechanically, so when the music faded into softer passages there was no apparent hiss or hum to spoil the illusion.

More orchestral in nature, 'Winter' by Tori Amos [*Little Earthquakes*; East West] showed how it could construct expansive soundscapes with real front-to-back projection. Vocal integration was fine, while solo piano – a ruthless revealer of under-performing hi-fi hardware – was thankfully reproduced without serious mishap. A bit more warmth around the swirling strings would not have gone amiss, although we admit this is really a matter of taste.

That aside, we found the Hitachi HA-7700 difficult to fault. It looks good, sounds good, does everything one could want and causes very little trouble. Although not tested here exhaustively, the built-in phono stage was pretty good too.

VERDICT

On this showing Hitachi deserves to be taken seriously. With a high standard of build and reputedly excellent reliability, this amp now makes a fine choice and should still give a purchaser many years of trouble-free enjoyment. ☺

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	81W / 77W
Dynamic power (<1% THD, 8/4/2/1ohm)	102W / 88W / 52W / 29W
Output imp. (20Hz-20kHz/100kHz)	0.082 to 0.130ohm
Freq. resp. (20Hz-20kHz/100kHz, 0dBW)	+0.0dB to -0.25dB/-3.4dB
Input sensitivity (for 0dBW/65W)	16mV / 130mV
A-wtd S/N ratio (re. 0dBW/65W)	79.8dB / 97.9dB
Distortion (20Hz-20kHz, 10W/8ohm)	0.0009–0.004%
Power consumption (idle/rated output)	64W / 275W
Dimensions (WHD) / Weight	435x165x383mm / 16kg

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Sugden A21 Series 2

From the late '60s, Sugden's A21 was the first successful domestic hi-fi amp on the UK market to utilise a fully transistorised Class A design. The drawback of Class A power amplifiers is their inefficiency, their need for proportionally larger PSUs, highly-rated output devices and generous heatsinking – all items that raise cost.

To avoid these problems, the bulk of the industry opted for the compromise offered by Class AB. As a comparatively inexpensive Class A

from simple steel pressings bolted together. Insulating shims and plastic screws prevented internal earth loops, while the screened preamp section was a sophisticated design incorporating an MM phono stage and a tape loop.

Front push buttons were used for source selection and to patch in the scratch filter, as well as the option to play either stereo channel through both loudspeakers or to work in mono. Sugden used individual latching buttons but arranged the logic of how they worked so that any combination gave a coherent result. For example, pressing both 'disc' and 'aux' together selected the tuner input, while releasing both muted the amplifier.

Inputs are all on 5-pin DINs, wired in the standard fashion so suitable adapters are easy to obtain. However, the auxiliary input is a little too sensitive for a 2V output CD player so an in-line attenuator may be desirable.

Agile and Engaging

First impressions after warmup were encouraging, with a lively sound backed by a useful amount of drive and punch. The A21 Series 2 will play reasonably loudly and at normal listening volumes one seldom ends up clipping the amp.

We found it to be surprisingly agile and engaging. It has seemingly been voiced to push the midband

design then, the Sugden A21 can be considered a watershed.

The original A21 first appeared in 1968, marketed by Richard Allan [HFN Apr '11]. As the design gained traction, Sugden took over distribution, adding its name to the front panel and fitting a headphone socket. The following year the Series 2 model was introduced, with BDY38 output transistors replacing the original BD121s. At the same time, the circuit was modified to increase the output to 12W, a high quality mains transformer was fitted and the power amplifier modules were separated, making it effectively a dual mono design.

The units were constructed around a sturdy chassis made

slightly forward, which makes for good vocal clarity. However, while the amp gives an undeniably bright sound, at the same time some instruments and vocal styles came across as rolled-off and diffuse. This was noted during Kate Bush's 'A Sky Of Honey' [Aerial; EMI]. Yet lisping vocals and cymbals that hissed rather than sparkled were soon forgotten, with the performance overall exceeding our expectations.

The character of the bass was not unlike that of a small early valve amp, being warm and generous if ultimately limited in control. The sharp rimshots in the percussion lines on Dire Straits' 'Calling Elvis' [On Every Street; Vertigo] lacked the delightful 'thwack' you get when playing this track through a more modern amplifier. The sound was more of a thud, although the A21 Series 2's low-end presentation seemed to gel with the bass guitar whose tone was portrayed as both deep and atmospheric.

Imaging too was a point in the amp's favour, with a wide and solid soundstage with tracks such as 'Fade To Black' from the Dire Straits album. Instrument locations could have been better defined, but this was a minor point. That a low-powered amp like this could make a good fist of our material perhaps demonstrates the strength of Class A, with low distortion and minimal feedback making every watt as usable as possible.

VERDICT

This landmark product deserves a place in any enthusiast's collection. Well made and durable, it's a good way to sample a Class A transistor amp without too much outlay or the need for complex restoration. Ⓛ

HI-FI NEWS SPECIFICATIONS

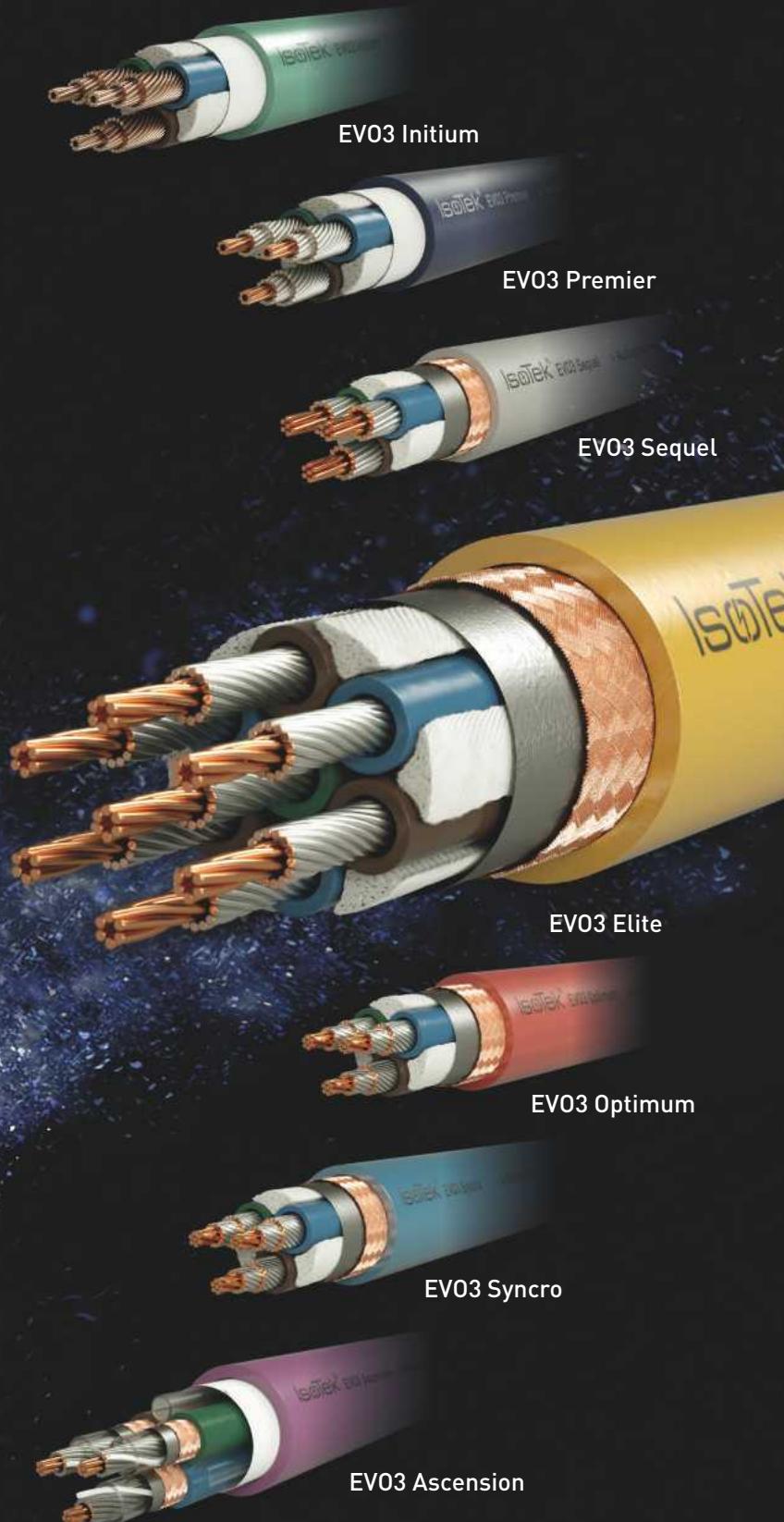
Continuous power (<1% THD, 8/4ohm)	13.5W / 10W
Dynamic power (<2% THD, 8/4/2/1ohm)	15W / 19W / 12W / 6W
Output impedance (20Hz–20kHz)	1.10 to 0.33ohm
Freq. resp. (20Hz–20kHz/100kHz, 0dBW)	-0.6dB to -1.5dB/-13.6dB
Input sensitivity (for 0dBW/12W)	58mV / 205mV
A-wtd S/N ratio (re. 0dBW/12W)	72.5dB / 94.1dB
Distortion (20Hz–20kHz, 10W/8ohm)	0.11–1.7%
Power consumption (idle/rated output)	70W / 70W
Dimensions (WHD) / Weight	394x127x229mm / 10kg



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Yamaha NS-1000M

Sometimes hi-fi companies reach for the stars and attempt to come up with an innovative, no-holds-barred design. Yamaha's NS-1000/1000M was precisely one of these, and following its 1974 launch it became recognised as a landmark product.

Yamaha had set out to make a high-end loudspeaker that delivered a wide bandwidth, handled massive amounts of power, had very low distortion and a lightning-fast transient response. It promptly won favour in recording studios.

This speaker is most famous for its beryllium tweeter and midrange dome drive units. Back in the early '70s, makers were moving away from paper for their domes and cones to heavy plastics such as Bextrene. Thus Yamaha's use of super-light beryllium seemed the stuff of science fiction.

The NS-1000M's upper drive units comprise the 30mm JA-0513 tweeter weighing just 0.03g (claimed Yamaha), while the 88mm JA-0801 mid driver was effectively an upscaled version of this with the same form of beryllium dome, surrounds and magnet system.

For the domestic NS-1000, Yamaha designers specified its

sensitive middle-C presence region. Meanwhile, treble and midrange level pads were fitted to trim the output of each driver to suit the listening room.

The NS-1000M was an attempt by Yamaha to distil the strengths of the NS-1000 into a speaker for professional use. The M variant had a more compact enclosure that was stiffer, lighter and finished in satin black. It came fitted with an uprated JA-3058A woofer, with a substantial metal grille to protect it for use in a pro audio environment.

As modified it delivered a cleaner, tauter sound that was able to truly capitalise on the excellence of the tweeter and midrange drivers. Meanwhile, bass was tighter and faster, with less overhang.

SETS UP A GROOVE

Put the NS-1000M on the end of a silky Quad II tube power amplifier, for example, and it will sound soft, louche and warm. Downwind of a high power solid-state power amp, such as a Constellation Taurus [HFN Dec '17], and the presentation becomes forensically detailed and ultra-explicit, with a brilliance of tone. In other words, the NS-1000M reflects faithfully what is higher up in the system.

Cue up the title track on Sugar Minot's *Hard Time Pressure* [17 North Parade] and the speaker sets up a groove that has your feet tapping

wildly. Feed it some complex rock music, such as the Genesis track 'The Lamb Lies Down On Broadway' from the album of the same name [Virgin] and the NS-1000M remains wonderfully composed, keeping everything tight and well ordered. This is one of the best speakers around on which to enjoy Phil Collins' crashing drums, the cymbals sounding beautifully metallic and possessing a lovely sheen.

'Kate Bush's voice hangs ethereally, sounding cold as ice, and no less clear'

JA-3058 300mm bass unit, which had a light but stiff paper cone. It went into the NS-1000's ultra-rigid 39kg cabinet, with every part of the walls at least 30mm thick. The finish was in a lacquered wood veneer.

The 12dB/octave crossover brought in the midband driver at 6kHz and the bass driver came in at 500Hz, enabling the large dome to handle a very wide frequency span with no crossing-over near the



Kate Bush's 'Running Up That Hill' [*Hounds Of Love*] transports you into a wondrous world of vast washes of immersive synthesisers. You can hear deep into the mix, and Kate's voice hangs ethereally in between the loudspeakers – sounding as cold as ice, and no less clear. Depth perspective is startlingly good.

VERDICT

Those who appreciate the Yamaha NS-1000M's unique character – its transparent and visceral performance across a wide range of material – will rarely part with them. So secondhand values are high! ⚡

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	89.7dB / 89.7dB / 89.6dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	4.6ohm @ 99Hz 30.1ohm @ 39Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	-55° @ 53Hz 39° @ 27Hz
Pair matching/Resp. error (300Hz–20kHz)	±2.3dB / ±2.6dB/±4.3dB
LF/HF extension (-6dB ref 300Hz/10kHz)	53Hz / 21.8kHz/18.7kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.3% / 0.1% / 0.1%
Dimensions (HWD) / Weight (each)	675x375x328mm / 31kg

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Paul Miller Editor

Technical writer on all things audio for some 35 years, award-winning test engineer and now President of EISA, Paul Miller took over the editor's chair in 2006

Stream or surge?

In a year when the hi-fi industry unveiled a dazzling array of new products, **Paul Miller** looks back at what was arguably a bigger story – the supremacy of streaming over physical music media

The integration of digital and amplifier technologies into one component was the hot topic of my Opinion page in both our 2016 and 2017 Yearbooks. This trend is ongoing, but while hardware maintains its steady evolution – in some cases ‘de-evolution’ – to fit numerous specialist niches, it was the music media itself that made the headlines in early 2018.

The BPI released some astonishing figures indicating that 2017 was a bumper period for the record industry – a trend set to continue through 2018. Streaming, it seems, now accounts for more than 50% of the UK’s music consumption with Spotify, Apple Music and other online services providing 68.1 billion streams of individual tracks.

NUMBER CRUNCHING

That's an increase of 51.5% over 2016, and 1740% since 2012. The BPI uses a rough and ready calculation that aggregates streams into ‘albums’ – so one track is ‘equivalent’ to ten streams and ten tracks equals one album. This leads it to a figure of 135.1 million albums either streamed, downloaded or purchased as physical (vinyl/CD) media through 2017 – a 9.5% increase over 2016.

The Internet allows artists to pitch their wares directly to fans, but few are able to govern their music once it's let loose. For artists, streaming services are a potential path to fame but no quick route to fortune [see p133]. So there's a value gap here, a gulf of lost earnings, and why I carefully chose the phrase ‘music consumption’, rather than ‘music sales’.

In a further twist some streaming services, including Tidal and Qobuz, are offering upscale subscriptions for MQA-encoded albums or uncompressed high-

res LPCM, but whether this will tempt the casual ‘mobile listener’ or, indeed, inspire a new generation of audiophiles is uncertain at best. City analysts are more confident, putting the potential value of music streaming as high as \$34 billion by 2030.

Nevertheless, if this initial surge is driven by the same music lovers simply rediscovering old faves in the latest format (or via a novel delivery system) then I’m bound to question whether such growth can be maintained. I reckon the giants of streaming will need to reinvent themselves and their services well before 2030...

HI-FI HEAVEN

Back in our audiophile world, while there were no seismic shifts in direction, we still enjoyed a host of fabulous new products. The Vivaldi One CD/SACD player/

USB/Network hub from dCS [p43] is a genuine statement piece, but my head was also turned by PS Audio’s Memory player/DAC [p51] and the MP 2500 R from T+A [p53], alongside fully networked amplifier solutions including the

EISA Award-winning Micromega M-150 [p67] and Primare I15 [p70].

Last year’s DSP-driven loudspeakers from B&O and KEF, complete with onboard network-ready/USB DACs and amplification, might have suggested the shape of things to come. But not this year... with the very honourable exception of the Model THREE from Kii Audio [p100], another very sophisticated DSP-guided speaker that offers a measure of directivity control.

‘Streaming is a quicker route to fame than fortune’

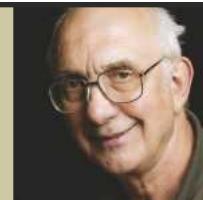


ABOVE: The growth of Spotify and its streaming rivals has been driven by listening on smartphones and other mobile devices

In practice we were not short of some pretty spectacular, albeit conventionally passive loudspeakers this year. Vivid gave us the Giya 1 Spirit [HFN Jan '18] and Kaya 90 [p107] while ELAC won an EISA Award for its Adante AS-61 standmount [p96] and Wilson stunned us with its costly TuneTot desktop [p109].

MINIMALISM LIVES ON

Meanwhile, and in contrast to the highly integrated ‘all-in-ones’, we were also treated to numerous ‘single-use’ separates. I’m thinking here of purist CD players like the ATC CDA2 Mk2 [p42] and very high-end DreamPlay ONE from Kalista [p46] alongside purely ‘analogue’ headphone amps including the Metaxas Marquis [p59], Luxman P-750u [p58] and Benchmark HPA4 [p55]. If there’s a theme that never changes in hi-fi, it’s the scope of its diversity! ☺



Barry Fox Technology journalist

Barry Fox trained in electronics with the RAF and worked as a patent agent, but he gave that up to enter journalism. He is one of the world's top technology writers

New audio world order

High hopes for voice control, a potential boost for physical media and plenty of action over at Atmos, but not everyone's benefiting as technology changes the future of music, says **Barry Fox**

It was another year spent hunting for live music without unnecessary amplification being used and watching the music industry endeavour to bury physical media. At the Swanage Jazz Festival this year, the sound crew, who came equipped with enough mics to sink a battleship, had no need to use them because, as one of the mixing engineers marvelled, the live sound of a big band brass section 'has the power of a jet engine'.

Most years at Swanage, and indeed at most live music events, all the musical acts – jazz or classical – set out a stall to sell CDs in the interval and after the show. As saxophonist Alan Barnes put it at Swanage, 'well you expect a butcher to sell sausages, don't you?'.

HARD SELL

But at this year's event Alan Barnes had only one sausage to sell, and his musical partner Dave Newton had none. Other musicians also had none.

'I have made a lot of recordings for Linn,' Newton told me later, 'but now it has stopped making CDs, and you can't sell downloads at gigs.' So the music industry's flight from physical media is hurting musicians. Researching the Investigation feature that appeared in the November 2018 issue of *HFN*



ABOVE: The Sonos One with Amazon Alexa voice control can be paired for stereo sound

on the essential basics of online music access, left me wondering what it will take to force a re-think from the record industry on physical media. It won't be the predicament of musicians unable to supplement their performance fees with sales of discs at gigs.

Still, during the year I spotted a patent filing from Sharp and Memory Tech that gave a clue as to why physical media may survive after all. The huge amounts of data needed for high-resolution video, with a gazillion channels of 192kHz/24-bit audio make online distribution impractical – it will break the Internet. So a team of Japanese engineers has been developing a next generation Blu-ray disc and player that can read data pits that are in theory too small for the laser to resolve.

The guts of the tedious 40-page document boil down to the use of a very thin layer of tantalum, over the super-small pits. When the player's laser power is cranked up the tantalum distorts and enhances reflectance.

SANITY STEP

Because record shops are now largely a thing of the past, I have spent the year looking for mail order sources of the CDs that some companies are still gallantly pressing or burning, especially the excellent four-albums-on-two-discs series of reissues from Avid. I've found Submarine of Enfield, 'the record store that comes to your door', reliable, but mainly aimed at jazzers like me. Readers with other musical tastes will doubtless have made their own discoveries. Perhaps they'd like to share?

The year saw voice control take off and it clearly has a great future. But as anyone who has asked Alexa to switch on an audio system, or play a track, and received the answer 'Hmm, I can't find that one' will know, we have quite a way to go before



ABOVE: Saxophonist Alan Barnes live on stage at this year's Swanage Jazz Festival

anyone halfway to sensible would entrust voice control with any action that could lock them out of a home system.

The year saw Sonos go from strength to strength too, delivering CD-quality stereo to mid-fi mono speakers, which

at least is a sanity step up from MP3 quality from a phone and iffy Bluetooth headphones. Meanwhile, Atmos, with its object-based audio, has remained fun when it comes to added action excitement in the

cinema and home theatre. But I wince at the memory of a mid-fi company demonstrating music through an Atmos mini system in the special consumer demo room at Dolby's HQ in London.

'Just hear the way the sound comes from above,' the demonstrator kept insisting. We dutifully tried to hear sound from above. Gosh how we tried. But failed dismally. ☺

'Engineers are developing a next generation Blu-ray player'

cinema and home theatre. But I wince at the memory of a mid-fi company demonstrating music through an Atmos mini system in the special consumer demo room at Dolby's HQ in London.

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Barry Willis

Journalist for top American audio-video publications

While his main interest is high-end audio, Barry Willis also writes about the culinary industry, visual art and theatre for a huge variety of US newspapers and magazines

Streaming is here to stay

More than half the US population now access music from the big four streaming services, but it's the fact that artists have a new way of getting paid that's significant. **Barry Willis** explains...

Approximately 325.7 million people live in the United States. As of March 2018, approximately 236.9 million of them were streaming music via mobile devices. During the previous year, they did so at the average rate of 32 hours per week. Meanwhile, 78% of US citizens over the age of five use streaming services, whose big four – Apple Music, Spotify, Pandora and SoundCloud – together serve 168.2 million listeners, or more than half the total population.

This simple extrapolation is derived from statistics posted on the data accumulation site Statista.com and from other readily-available sources. It's easy to see that streaming is here to stay. However, what's less easy is obtaining reliable data on how much these services are paying musicians.

SPLIT FEES

Sheer popularity ensures that superstars such as Taylor Swift and Bruno Mars will be very well compensated, but what about those toiling further down the musical food chain? In an opinion piece posted on January the 26th, 2018, on CNBC.com, Grammy Award-winning record producer Kabir Schgal asserts that Spotify pays between \$0.006 to \$0.0084 per stream to the holder of music rights – a fee that can be split among record labels, producers, artists and songwriters. Schgal quotes a study showing that 'one million plays on Spotify translates to around \$7000, and one million plays on Pandora generates \$1650'. Artists under contract to record labels can give up as much as 70% of such fees. There are good reasons why 'starving artist' is an enduring cliché.

It's tough for working musicians. One such is Nashville-based Rick Clark,



ABOVE: Nashville-based musician Rick Clark (left) and Nataly Dawn of musical duo Pomplamoose, both of whom have profiles on the online platform Patreon. See <https://www.patreon.com>

who last August made a whirlwind tour of important places on the music-and-technology axis (Austin in Texas, Los Angeles and San Francisco) in a quest to get a handle on exactly how an artist builds a career in this new environment.

He was especially sour about prospects for less-than-subsistence income from streaming services, but a day of meetings

with San Francisco's Patreon.com gave him new enthusiasm about how he might leverage online giveaways into real income.

'Spotify is the replacement for commercial radio,' one Patreon executive

"One million plays on Spotify translates to around \$7000"

explained to him. 'It doesn't matter if you aren't gaining revenue from it – what's important is the exposure. Your fans will find you. If they like what you're doing, people will pay to support you to create your music. Patreon is how you get paid.'

As its name implies, Patreon's philosophical foundation is the recognition that artists need support to do what they do. The service takes the patronage concept into the public arena, making it

possible for unlimited numbers of fans to support artists of all kinds. A minimum monthly commitment of only one dollar gets a foot in the door while tiers of \$5 and \$10 per month provide access to more. There's no upper limit. Fans can contribute as much as they wish.

WORK ONGOING

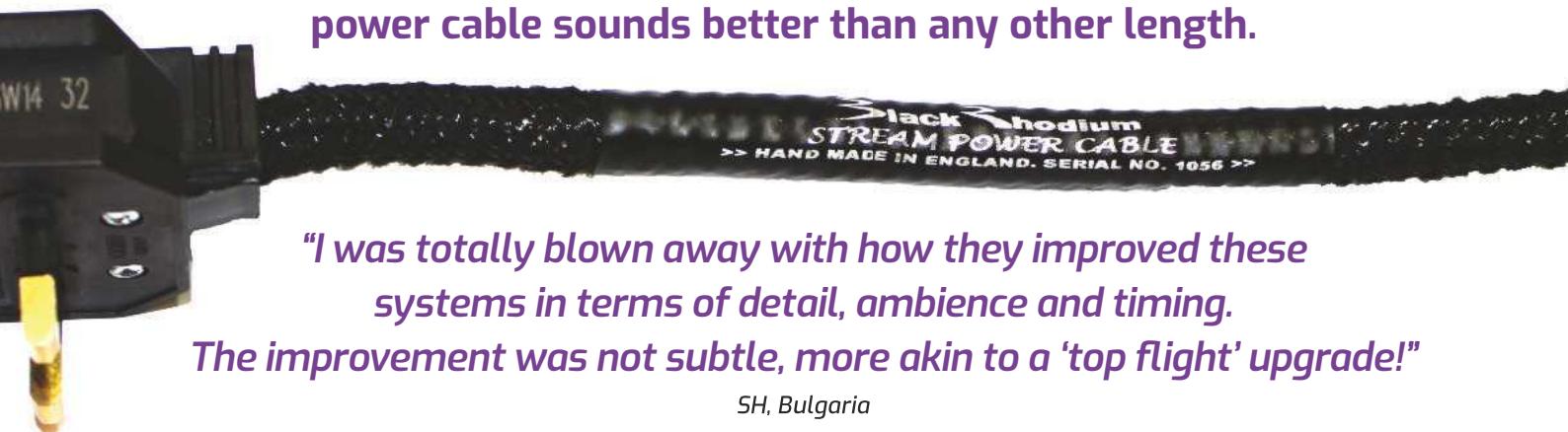
The varying rate explains why, in late August, composer Tessa Violet earned \$5874 per month from her 932 Patreon fans, while quirky Sonoma County duo Pomplamoose earned \$6055 from 1475. The financial figures aren't the stuff of Fortune 500, but are far beyond what most musicians could expect working day jobs and gigging at small clubs.

One of Patreon's most attractive aspects is the potential for long-term support for artists on its roster. 'Kickstarter and other crowd-funding sites are project oriented with fundraising deadlines,' Clark says, 'while Patreon is designed to fund ongoing work.'

The most significant event in 2018 was not a twist on recording or playback technology, but the emergence of a brand new business model that appears to actually puts artists first. ☺

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Adam Smith Hi-fi reviewer

Electronics engineer, music lover and former loudspeaker designer, Adam Smith is known to dabble with all audio formats, but is a committed vinyl fan at heart

Table talk

Vinyl sales were up again while there was no shortage of super decks and cartridges to tempt. **Adam Smith** recalls the analogue offerings, both quirky and classic, that came our way in 2018

TIt appears the world's love affair with vinyl is showing no sign of abating. This year's annual Record Store Day on April the 21st saw 60,000 albums and 30,000 singles sold in the UK – a year-on-year increase of 16%. What did not change, however, was the biggest selling artist – once again David Bowie took the honours, this time with his *Welcome To The Blackout* LP.

In the US, the numbers were even more impressive, with total sales on Record Store Day of 773,000 albums – 124,000 up over the previous year's tally, although Bruce Springsteen slipped past Bowie to take the honours in the sales chart. Overall, US vinyl sales saw a 19.2% increase over the first half of the year – rising to 7.6 million.

PERFECTLY BONKERS

So, it's all good news for vinyl acolytes, even if there is a suggestion from the Entertainment Retailers Association that 72% of all UK vinyl sales are actually accounted for by 157,000 'superfans', who are pretty much snapping up everything. Then again, there are still plenty of vinyl-related Kickstarter projects that are intended to appeal to the wider community.

A perfect example is the magnificently bonkers Kozmophone, which achieved 122% of its funding on its release date back in June. It comprises a full-size turntable and a horn-loaded loudspeaker that rotates through 360°, but this can also be detached and used as a standalone Bluetooth speaker if desired. It's certainly not hi-fi, but it's sure to be great fun.

Interestingly, the LP's growth seems a fitting event for 2018, as this marks the 70th anniversary of the medium. It was in 1948 that Columbia released its first long player – Mendelssohn's Violin

RIGHT: Technics' SL-1000R sees the company's SP-10R, with its heavy brass and cast alloy platter, matched with a bespoke plinth and tonearm. The plinth will also take optional arm bases as pictured here. As a package the deck is known as the 'Reference Class' SL-1000R [see p37]



Concerto with Nathan Milstein, and I doubt even Columbia could have imagined how the format would have endured [see p142]. The likes of cassette, CD, DAT, DCC, MiniDisc and many others have all challenged it over the years, but it seems many of us still like to reproduce our music by dragging a lump of rock through some plastic.

Of course, the format was not the only birthday celebrated in 2018. One of the biggest names in vinyl replay since the LP's introduction – Ortofon

"Everyone wants to know if there's going to be a new SL-10"

– also turned 100. It marked the occasion with the release of three strictly limited centenary cartridges – one SPU, one Concord and the top-flight MC Century, which at a shade under £9000 is the most expensive pick-up the company has ever produced. I was lucky enough to hear the MC Century at the Munich High End Show this year and it was a breathtaking experience. Naturally, only 100 are being made, but those lucky enough to own one will have something very special.

The biggest vinyl news of the year had to be the appearance of Technics' SP-10R direct-drive turntable and the SL-1000R [HFN Jun '18], which adds a base and arm. Announced in 2017, models arrived this year for sale and review and they certainly lived up to the hype.

Editor PM declared the SP-10R to be one of the finest motor units he has ever measured and I was delighted by the performance of the matching arm. More than a handful of Internet 'experts' took delight in decrying the arm as a last-minute effort simply to complete the deck, so the revelation that it is not only a visual match for the motor, but also a top-end performer is a superb outcome.

PARALLEL UNIVERSE

Mind you, human nature being what it is, one cannot help but wonder what might be next from the company and so I posed this very question to a member of the Technics team at this year's Bristol Hi-Fi Show. 'Well, everyone wants to know if there's going to be a new SL-10,' he said chuckling. A reborn direct-drive parallel-tracking deck? The way the vinyl revival is going, you just never know! ☺

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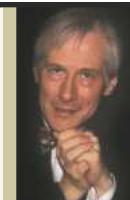
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Christopher Breunig Music Journalist

Christopher Breunig trained as an architect but became won over by music and collecting classical recordings. He was *Hi-Fi News*' Music Editor from 1986-2000

'New York, New York...'

The Bernstein centenary has been celebrated in style, says **Christopher Breunig**, and while sadly we lost a major British composer in 2018 a spotlight on a neglected past one began to shine

September's Classical Companion featured Leonard Bernstein, born on the 25th August 1917, and his centenary year has brought various tributes. There were new CD boxes from Deutsche Grammophon; a fine series of Classic FM broadcasts starting in July by biographer and friend Humphrey Burton; and a *Guardian* piece with tributes from Marin Alsop, John Mauceri, Jamie Bernstein and others.

Then, of course, came the Proms programmes that included *On The Town*, *West Side Story*, two of the Symphonies and – a premiere – a completion of the ballet score *Conch Town* with mezzo-soprano, two pianos and percussion.

DELICATE DANCES

This unpublished work dates back to 1941. You can see a manuscript page online and pages 15-21 later provided the song 'America' for *West Side Story*.

One of the recordings of his music that I particularly enjoyed rehearing this year was in a Seiji Ozawa Decca box [478 2358; 11 discs], which was a 2010 compilation. A former Bernstein assistant, he had recorded the 'Symphonic Dances' from *West Side Story* in June 1972 with his then San



ABOVE: A favourite with our reviewer, the live Mahler and Strauss [MPHIL 9305211296]

Francisco Symphony Orchestra (the original LP coupled *Three Pieces For Blues Band* by Chicago jazz composer William Russo). His account makes you marvel at the skill shown by Bernstein as an orchestrator, and Ozawa brings a special delicacy to the score, without losing its essential energy – although 'Somewhere' is challengingly slow compared to the sung track in the composer's complete recording.

Sergiu Celibidache is another conductor whose genius was revealed anew in a Munich PO coupling of Richard Strauss's *Death And Transfiguration* and Mahler's *Kindertotenlieder* with Brigitte Fassbaender, taken from live concerts [MPHIL 9305211296]. I reviewed this in *HFN Jul '18* and it's only because the sound is dated that it's not in our 'best of the year' classical selection.

CLEAN SWEEP

But what was the most exciting *live* performance of the past year? Surely Kirill Petrenko's Beethoven Seventh, from the September 2nd Prom concert with the Berliner Philharmoniker.

A new broom sweeping clean, as he will become its chief conductor next year. Already he's being likened to conductor Carlos Kleiber, but the clips that can be found on YouTube portray an utterly different, animated podium figure unique in manner.

Sadly, July brought the sudden death of the composer Oliver Knussen, aged only 66 (I remember his father, Stuart, was LSO principal double-bassist, many years ago), only days after receiving a doctorate from the Royal Academy of Music.

His last concert was at Aldeburgh, in late June, and on BBC Radio 4's *Front Row* Snape Maltings executive Roger Wright spoke movingly about his musicianship. 'His support for younger generations of composers through his mentoring

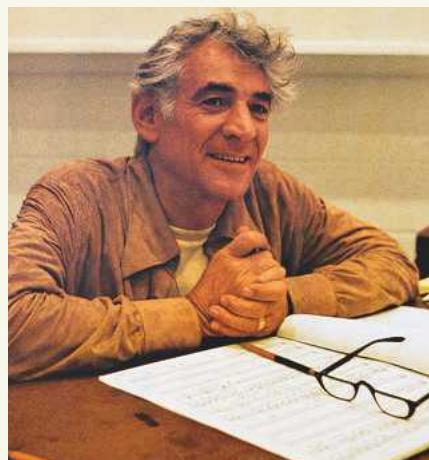


PHOTO: HENRY GROSSMAN/CD

ABOVE: Composer Leonard Bernstein, who was born in Lawrence, Massachusetts in 1917

and nurturing was unique, and his compositional legacy is remarkable.'

The freelance, former Decca Classics, producer James Mallinson also passed away (from pneumonia), the following month. He prepared all of the early

LSO Live recordings, working as well in St Petersburg with the Russian conductor Gergiev and the Mariinsky Theatre Orchestra. Mallinson also founded the Chicago SO own-label Resound, working

'What was the most exciting *live* performance of the past year?'

with Haitink. But earlier work included many Solti CSO recordings – not least Sir Michael Tippett's Symphony No 4.

Hyperion has a new cycle underway of the symphonies by Tippett [see p171]. The conductor is Martyn Brabbins with the BBC Scottish SO, doing sterling work for the label. It's music worth persevering with, especially Symphony No 2, while their Elgar programme with *In The South, Enigma Variations, etc*, [CDA68101] was my 'Album of the Year' choice for 2017. ☺

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Andrew Everard Reviewer/writer

Andrew Everard has reviewed consumer electronics for over 30 years and is still effortlessly enthusiastic about new developments, discovering new kit – and music

Convenience in store

Good sound shouldn't be difficult to achieve, especially when new products are appearing that put the emphasis on user-friendliness. **Andrew Everard** reveals his pick from the past 12 months

To misquote Arkwright, the character in sitcom *Open All Hours*, it's been a funny old year in hi-fi. We've had mergers and acquisitions, anniversaries and departures, to the point where one begins to realise that one has reached an age where the constants are no longer constant, and change is inevitable.

Strangely I was reminded of that at a recent event to mark one of hi-fi's constants: the launch of the Marantz KI-Ruby models, the player and amplifier (each to be sold in a limited edition of 1000 units) built to celebrate Brand Ambassador Ken Ishiwata's 40 years with the company. It was good to hear Ken talking for the first time about his very early years with Marantz. If a little sobering to realise it's getting on for a quarter of a century since the idea was first mooted of a KI-Signature version of the CD-63 MkII CD player.

SIGNATURE SOUNDS

The thought led me to fire up my own early 'CD-63 KI' when I got back from the Ruby event in Amsterdam. Yes, the drawer now shrieks when it opens or closes, and I've never got round to

RIGHT: The Roon Nucleus+ network audio library is a data storage and delivery device that comes with USB and HDMI outputs [see p52 and <https://roonlabs.com>]



sorting it out, but the player itself still has the aura of rightness about its sound, making it a very pleasurable listen.

Talking to Ishiwata after his KI-Ruby presentation, for which he wore a shimmering gold jacket 'so I'm ready for my 50th', I asked him whether the KI line was now a thing of the past, or if he still had ideas for 'hot-rodded' versions of the current mainstream Marantz range. The answer was somewhere between 'Never say never' and 'Anything's possible...'

The conversation over dinner, with Ishiwata's 'partner in KI crime' Rainer Finck and some of my European press colleagues, turned to the attention-span of some of today's listeners – which we estimated at one track to 30sec or less – and on to 'When was the last time you listened to an album all the way through to the end?'.

I had to answer that, given my penchant for classical music, my listens are perhaps more linear than those of your average pop/rock/whatever fan, but as an aside, I had to think hard to remember when – reviewing aside – I actually last loaded up a CD or LP for playback.

Most of my listening these days is sourced from one of my servers, either using downloaded music or albums ripped from CD or SACD, and delivered using either a dedicated audio player or a combination of computer and Roon.



ABOVE: Manfred Honeck conducts the Pittsburgh SO on Reference Recordings

I've become quite a devotee of Roon, having reviewed quite a few 'Roon Ready' products over the past year or two, including the Roon Nucleus+ [HFN May '18], which is designed to act as the 'core' of any system. Yes, other playback systems are available, but I've not found anything so flexible, adaptable, and just plain simple – and easy to use.

CLICK TRACK

While writing this I've just clicked on the latest Manfred Honeck/Pittsburgh SO set from Reference Recordings, of the Beethoven 'Eroica' and Strauss Horn Concerto No 1. Before that I was listening to a Proms download of

Brahms 1 by the Budapest Festival Orchestra under Iván Fischer – and very good it sounds too. So much so that with a click or two I have just directed it from my desktop system to the main set-up in the

'I've not found anything so easy to use as Roon's Nucleus+'

listening room to get the full effect.

There is a misconception that in order to get the best sound one must tweak, adjust and tweak again, and indeed that good sound, by its very nature, must be difficult. What's changed over recent years, and continues to evolve, is that winning combination of fine performance and ease of use. That pairing will always get my vote. ☺



Tim Jarman Electronics Engineer

Tim Jarman has been repairing and collecting vintage hi-fi for over 20 years. He is an authority on both classic B&O equipment and the Sony Walkman series

Big in Japan

The highlight of the past 12 months for **Tim Jarman** was when he finally made house room for a pair of mighty vintage loudspeakers made in Japan. Could you be persuaded to bite the bullet too?

How does the vintage hi-fi collecting bug bite? It can start quite innocently, perhaps when you spy then buy the amplifier you always wanted when it was new. Then you begin to hanker after the matching tuner, so track down one of those. Not only does it look good but it sounds great too, so you then go on the trail of the cassette deck, or perhaps one of the better turntables from the range the company offered that year.

Before you know it you have the whole system, just as it was when you first saw it at a fondly remembered hi-fi show, or when you pressed your nose up against the window of your local dealer's showroom back in the day.

But what about the speakers? I know of few people who go this far. Many are prepared to settle for something modern, or period but certainly 'off brand'. But it doesn't have to be this way, as I discovered this year...

EXOTIC MATERIALS

Conventional wisdom has it that speakers made by companies who are good at electronics are rarely up to much. While this may be true in some cases, there are too many exceptions to make it a general rule. A look through the old catalogues issued by the big players of the vintage era reveals legions of models in all shapes and sizes, some employing advanced techniques and exotic materials. Most of these one never sees on the UK secondhand market. The importers didn't bring them in, the dealers didn't stock them and the public didn't buy them. Part of the explanation for this is a logistical one. After all, would you fill a shipping crate with 100 pairs of speakers and generate 100 sales, or 300 tuners, amplifiers and tape decks

'Some of these refrigerator-sized units can come as a shock'



ABOVE: The Technics SB-7000 (left) is a three-way bass-reflex speaker launched in Japan in 1975. More models made in Japan (right) – the '8700 and '9700 loudspeakers from Sansui's SP-X series

and generate 300 sales? For the most part speakers are wooden boxes full of air, which in relative terms makes them expensive to ship from Tokyo to the UK.

Many classic Japanese loudspeakers were assembled much closer to their target market. Sony made them in its Wega factory in Germany using European drive units, Hitachi had some of its models built

in Denmark and Sansui offered its European Sound range, proudly made of 'European wood' (what else?).

The real surprise is that not all of these speakers were compact in size. On the contrary, models such

as the Sony SS-G7, the JVC Zero 10 and Trio LS-1900 were all full-sized, carefully designed loudspeakers with big ticket prices. Then there was the Sansui range that came direct from Japan. Released in the late 1970s, the SP-X series dwarfed the company's European Sound range.

Some of these refrigerator-sized units can come as a shock. Who'd have thought they originated in a country where space is

supposedly at a premium? Cabinet styling is frequently overtly technical as opposed to being harmonious with other furniture and the drive unit count generous. It is not uncommon to find every square inch of the front panel occupied by a drive unit, a switch, a knob or a printed graph.

Cabinet quality is variable: some enclosures are true works of art yet many are made from coarse grain chipboard covered in synthetic veneer – more MDF than hi-fi. The working parts are usually pretty decent though, with high quality crossover components used along with drive units that take a fair amount of abuse in their stride.

ORIENTAL RARITIES

Loudspeaker design is all about shuffling various compromises in order to yield the desired results. What makes these big Oriental rarities intriguing is that the compromises often fall differently to where they did with the familiar vintage favourites. And once you relax into listening you soon find there is real merit here. Ready to take the plunge? I did, with a pair of Technics SB-7000s. Now all I have to do is restore them... ☺



Cliff Joseph Technology writer

Cliff Joseph started his journalistic career on *MacUser* magazine, but followed the iPod into the digital audio market as it developed from the early days of MP3

Wireless world

Cliff Joseph will remember 2018 as the year wireless audio grew up as he was able to banish his Bluetooth blues and embrace cable-free music listening at home – as well as on the hoof

Having a good hi-fi system at home is one of life's great pleasures, yet the truth of the matter is that I probably spend more time listening to music on trains, planes and automobiles than in the comfort of my own living room. So I've been pleased to see mobile music technology continuing to develop over recent months, and to provide not just better sound quality but greater convenience for the user too.

The market for portable DACs and amps continues to grow, with notable new products such as iFi Audio's EISA Award-winning xDSD [HFN Jul '18]. The xDSD challenges the market-leading Chord Mojo [HFN Jan '16] on sound quality, and ups the ante with support for Tidal's MQA streaming, and Bluetooth for wireless connectivity. The fact that Tidal is still in business and attempting to offer a high-quality alternative to the Spotify/Apple streaming duopoly is a bit of a highlight in itself.

ABANDON THE TANGLE

Bluetooth technology is also continuing to develop, and although I've tended to avoid Bluetooth headphones in the past I've been encouraged by the increasing adoption of the latest AptX HD technology in products such as the Bowers & Wilkins PX [HFN Jan '18]. The claims of 'better than CD quality' for these wireless headphones might be a tad over-the-top, but AptX HD does provide enough of an improvement in sound quality that I'm finally tempted to ditch the aggravating tangle of wires that I normally carry around when travelling. It's not just headphones either, as many smartphones now support AptX HD for streaming audio, and even amps such as the Cambridge

Audio Edge integrated amp/DAC [HFN Nov '18] provide wire-free music back at home.

'This year the game-changer was the arrival of AirPlay 2'

May this year, alongside the company's HomePod 'smart' speaker – brings new multi-room capabilities that no other manufacturer has been able to achieve in the past. Previously, anyone interested in building a multi-room music system had to buy all their speakers from a single manufacturer, such as Sonos, Denon, or B&O. However, this updated version of Apple's wireless streaming software



ABOVE: Another EISA Award-winner, the Marantz ND8006 network player [HFN Sep '18] is just one of the company's components able to receive an update to Apple's Airplay 2 technology

completely changes both the business model and the technological basis of multi-room audio. Apple licenses the AirPlay 2 technology to other manufacturers, so any speaker that works with AirPlay 2 is now compatible with similar AirPlay 2 speakers from any other manufacturer. This means that it's now possible to create a custom multi-room audio system using 'separates' from multiple brands for the very first time.

BIG BRANDS TOO

Apple's HomePod speaker may not have attracted much attention from audiophiles, but a number of big name manufacturers have already launched new products – or updated existing products – to work with AirPlay 2, including Bang & Olufsen, Bowers & Wilkins, Devialet, Naim and Denon. This means that you can have some big B&O speakers as your main music system in the lounge, a smaller Sonos speaker in the kitchen, and maybe even one of Libratone's little portable Zipp speakers to take out into the garden – with all of them linked together via AirPlay 2.

And it's not just speakers that work with AirPlay 2, as there are amps and receivers coming from companies such as Naim, Marantz and Denon too. So if I remember 2018 for anything, it'll be as the year that I was finally able to go completely wireless with all my music, both indoors and outdoors at last. ☺



Steve Harris

Contributing Editor

Media milestones

For **Steve Harris** the past year was marked by a number of audio anniversaries and the decision by the UK government to take a fresh look at the future of FM radio. Well, at least for now...

A year, perhaps, of consolidation and in one area, a retreat from the brink. At the end of 2017, Norway completed a year-long transition process and finally switched off all its national FM broadcasting.

At that time in the UK, research figures showed that 48.8% of radio listening was now done digitally. Digital listening would finally reach 50%, meeting one of the government's stated criteria for FM switch-off here, in the first-quarter listening figures for 2018.

MIXED ECONOMY

But there were other considerations, as Ford Ennals, CEO of Digital Radio UK, cautiously pointed out: 'There are many lessons we can learn from the Norway experience, particularly in relation to making sure there are the right products and resources to help listeners upgrade to digital radio in their car.'

In mid-March came reports that the BBC's Director of Radio Bob Shennan was now arguing for a 'mixed economy' in which FM would continue to co-exist with DAB and the Internet. 'We need to do more in the UK before we

consider a switchover and for that to be genuinely led by the audience,' Shennan told a conference in Vienna. 'We are fully committed to digital and believe we should review the landscape in a few years' time.'

Later on, 2018 brought a couple of audio anniversaries, most notably the 70th birthday of the vinyl LP. With its revolutionary new microgroove records, first launched in June 1948, Columbia banished the worst failings of the 78rpm shellac disc. Columbia's engineers had at last combined three key elements – slower playing speed, better disc material and a finer groove – which all had been tried but never before combined successfully.

In the following year there was a 'battle of the speeds' as rival giant RCA tried to establish its 45rpm microgroove records rather than adopting Columbia's 33.3rpm. This was ironic, really, as RCA had actually been the first to introduce 33.3rpm discs more than 15 years earlier. Also ironic, because RCA was the leader in the field of classical music, which had most to gain from the long-playing format.

The 33.3rpm speed standard had been established in the 1920s, originally for movie sound. In Hollywood, discs quickly gave way to sound-on-film systems, but soon similar 33.3rpm discs were being widely used by the transcription services that provided recorded material for radio stations across the USA. However, the 33.3rpm records for consumers that RCA launched in 1931 were a commercial failure. RCA used a shallower, closer-space though still 78-sized groove, and also used a vinyl material for the first time. But with America in the depths of the depression, there were few customers for RCA's expensive two-speed players.

In 1932, Columbia introduced and quickly abandoned a 'Longer Playing Record', cut with finer grooves to give four



ABOVE: Columbia Records introduces the public to the first LP in this ad from 1948

and a half to five minutes from a 10in disc instead of the usual three.

SIXTY NOT OUT

But after the War, with America's record sales booming, the time was right. The

1949 'battle of the speeds' was soon over. RCA launched its first 33.3rpm LPs in 1950, and in 1951 Columbia started selling 45s. Although 78s lingered on, surprisingly as it now seems, into the 1960s, by then we'd

passed another milestone, with the introduction of stereo LPs in 1958.

Today, 60 years on, we don't regard mono records as obsolete, and the only ones we tend to abhor are those that have been electronically 'reprocessed' or 'rechannelled' for fake stereo. Having made it to three score and ten, the vinyl LP looks set to become the Methuselah of audio formats. It could even outlast FM. 



ABOVE: In March 2018 the BBC announced it was to hold fire on switching off FM in the UK

Kubrick or Technics 調

Belt Drive or Direct Drive : Which will you choose ?

With the release of the Kubrick Belt Drive and Technics Direct Drive there is now a choice of top ranked turntables both reviewed by Hi-Fi News. The Kubrick has been developed with cutting edge CAD and extensive listening tests and the new Technics SL-1000R and SP-10R have been designed by the best Japanese Audiophiles out there.



Soulines Kubrick Hi-Fi News said :

"Not only are the Soulines DCX Kubrick and Timestep T-609 compelling products in their own right but, fortuitously, they also work very well in combination. The turntable is well engineered, looks like a piece of sculpture and sounds very fine indeed. Meanwhile, Timestep's new titanium tonearm is the icing on the cake, sounding especially sweet with low compliance moving-coil pick-ups." In stock and we have one on demonstration. Ask us about our very special offers ?



Technics SL-1000R Hi-Fi News said :

"A remarkable turntable package, and arguably the apex of vinyl playback. It's difficult to see how the SP-10R motor unit can be improved upon, and the matching plinth and tonearm are of very high calibre – even if audiophiles will experiment with other combinations. The Technics' SL-1000R is a definitive statement of engineering prowess, and marks the return of direct drive to the top tier of turntables." In stock and we have one on demonstration. We can also demonstrate the SP-10R chassis version in many different forms with different tonearms. The choice is yours.



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Modular Machined Alloy Armboards for Technics SL-1200 Turntables (Mk2/Mk5/GAE/G/GR)
Soulines Kubrick DCX Turntable

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[Soulines](#) | [Townshend Audio](#) | [AnalogMagik](#) | [Acoustical Systems](#) | [Black Rhodium](#)

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"It must be said, it's a pleasure to immerse yourself in just how good this pairing can make standard Red Book CD sound."

"The upgradability is very reassuring when making an investment on this level."

Andrew Everard –
HiFi News May 2018



P S A U D I O

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"To equal the sonic performance of this PS Audio front end you would have to spend tens of thousands of pounds."

Mike Norton –
Midland HiFi Studio.

Introducing PS Audio's multi-award winning DirectStream Memory Player



The finest transport in the world.

If you have a CD or SACD collection, PS Audio's DirectStream Memory Player (DMP) will enrich your musical experience for years to come.

DMP is a universal transport, capable of playing multiple types of optical discs including SACD, DVD audio, CD R/RW and more.

- CD performance of DMP has been enhanced to a degree once thought unobtainable
- Played through DMP, ordinary CDs take on new life with improved dimensionality, soundstage width and depth
- Enjoy improved dynamics (both micro and macro), increased low level harmonic information and richer tonal balance

Hear SACD truly for the first time through the DirectStream combination

The protected DSD layer of SACD has long been available only through D/A converters built in to players, a few receivers and surround processors. These internal D/A processors, while adequate, were never capable of playing back stored music at the quality and performance levels enjoyed by mastering engineers. Now, with the introduction of PS Audio's revolutionary new memory player, DMP, owners of our DirectStream series of DACs can uncover all that they have been missing. Based on a proprietary handshake protocol between DMP and PS Audio DACs, through our advanced I²S interface, pure DSD is streamed to, and processed in, the same reference quality DAC used by mastering engineers.



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PS Audio's DirectStream DACs use Roon end point.

Roon is an incredibly rich and engaging way to browse and organise your music. It runs on most Mac, Windows, and Linux PCs, or on other products which include Roon Core.

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Hi-Fi Show Limited Price Offer for PS Audio's DirectStream DAC

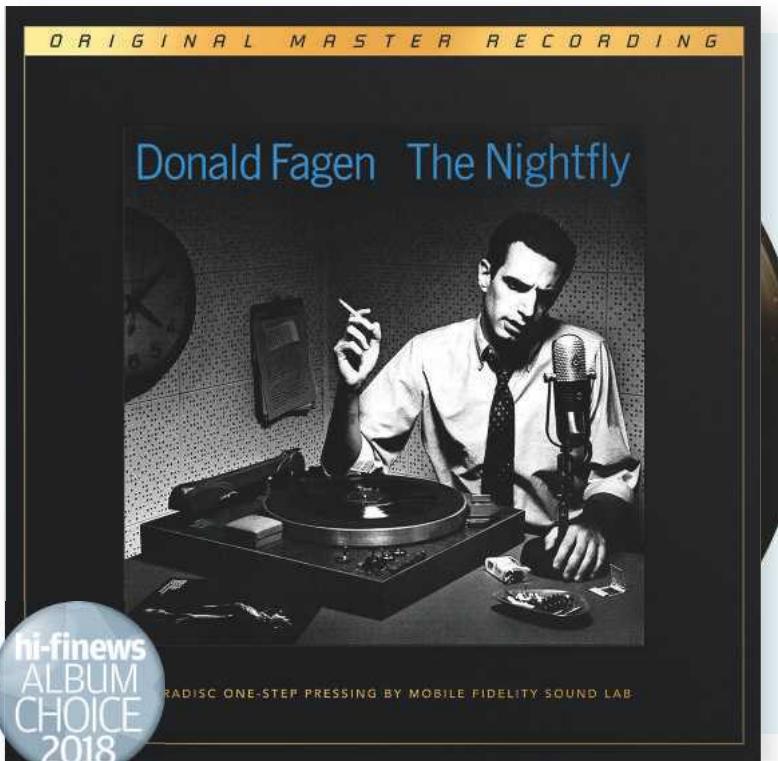
Between the 10th of October and close of The Hi-Fi Show at the De Vere Beaumont Estate, Windsor, you can buy the PS Audio DirectStream DAC for just £4600.

To take advantage of this special price please contact your PS Audio Dealer with promo-code: **DSDAC18HIFISHOW** to be eligible for this limited discounted price.

"Recent upgrades have lifted the DirectStream DAC into another league".

Andrew Everard –
HiFi News May 2018.

AUDIOFILE: VINYL



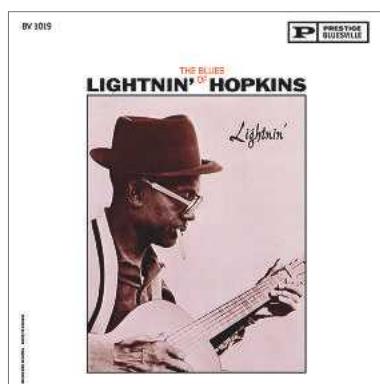
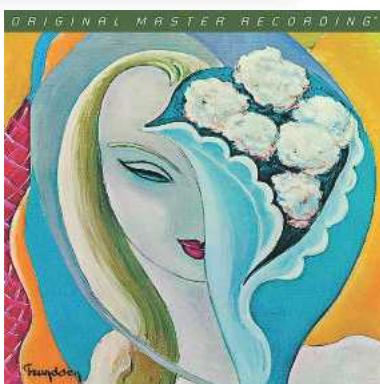
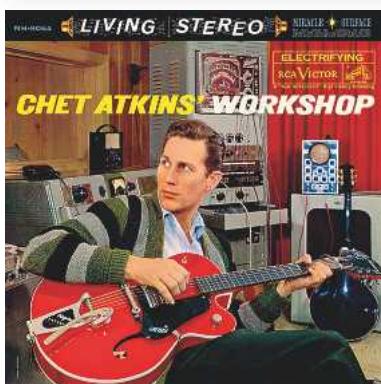
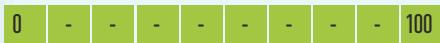
DONALD FAGEN

The Nightfly

Mobile Fidelity UD1S 2-003 (two 45rpm One-Step LPs)

Before you click 'send' for any hate email to direct my way, two observations: 1) Mobile Fidelity learned a lesson from the Santana Abraxas sell-out, and this latest One-Step is a 6000-copy pressing; and 2) MoFi announced it online months before release. That said, this is as spectacular as one would hope of a \$99 LP version of a release that was an audiophile hit some 35 years ago. Its audience was guaranteed, given the love our community (rightly) has for the jazz-inflected rock of Steely Dan. This was decidedly more *noir* in feel, like an episode of *Peter Gunn*, and full marks to the company for somehow making an early example of all-digital recording sound so truly analogue. KK

Sound Quality: 95%



CHET ATKINS

Chet Atkins' Workshop

Modern Harmonic/Sundazed MH8064 (180g LP)

Numerous audiophile labels have reissued RCA 'Living Stereo' titles over the decades for the simple reason that they number among the finest-sounding LPs of all time. And none have blown me away like this set of Atkins' guitar instrumentals from 1961. The genuinely convincing 'naturalness' of the sound is something to behold, and it doesn't matter if you have no love for jaunty versions of schmaltz like 'Tammy' or a slightly daft 'Lambeth Walk' – this will grab you by the ears. Atkins is, for my money, one of the most enjoyable, most fluid pluckers who ever plugged in a guitar, and this album proves it. That the sound is so remarkable simply ices the cake. KK

Sound Quality: 95%



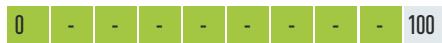
DEREK & THE DOMINOS

Layla And Other Assorted Love Songs

Mobile Fidelity MFSL2-470 2LPs (two discs; 180g vinyl)

I stopped counting the various *Layla* reissues, thinking that 2011's extras-laden 40th anniversary box said it all, but MoFi has managed to deliver what is – to my ears – the best-sounding version of the original double LP so far. Don't, however, buy this thinking that its sonics match an RCA 'shaded dog' because it's not that kind of achievement. Here the gains are clarity, focus and solidity down below. A feast of guitar virtuosity, it features two guitar gods – Duane Allman and Eric Clapton – in perfect sync. For me, the 'money' track is 'Key To The Highway', but all 14 are dazzling, and now with whole layers of grunge banished forever. KK

Sound Quality: 90%



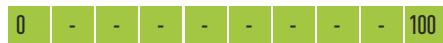
LIGHTNIN' HOPKINS

Lightnin'

Acoustic Sounds/Bluesville 1019 (180g vinyl LP)

For music once treated so cavalierly by major labels, the blues yielded numerous magnificent recordings, light years away from the primitive sonic quality of, say, Robert Johnson's pre-WWII sessions. In a similar vein to Muddy Waters' *Folk Singer* is this superlative acoustic session from rural blues legend Lightnin' Hopkins, from late 1960. Playing guitar and backed by just bass and drums, he delivered ten tracks with at least half staples of the genre, timed just as the folk revival was giving the blues a much-needed boost. 'Automobile Blues', 'Mean Old Frisco', 'The Walkin' Blues' ... for those who crave unvarnished authenticity, but with in-the-room presence, a tonic. KK

Sound Quality: 95%





MICHEL LEGRAND

Legrand Jazz

Impex IMP6028

In small print across the sleeve is the undersized note 'With Thirty-One of America's Greatest Jazzmen Featuring... [in double the font size] ...Miles Davis'. While conductor/arranger Legrand clearly gave top billing to the trumpeting god, this 1958 trio of supersessions also included Herbie Mann, Bill Evans, John Coltrane, Donald Byrd, Ben Webster, Art Farmer and others of that calibre, to tally 31. The three groups of tracks range from ensembles of 10-15 performers, covering jazz standards such as 'Round Midnight', 'Stompin' At The Savoy' and nine others, with verve and panache. Luscious, and this just may be one of the best-sounding records you'll ever hear. KK

Sound Quality: 95%



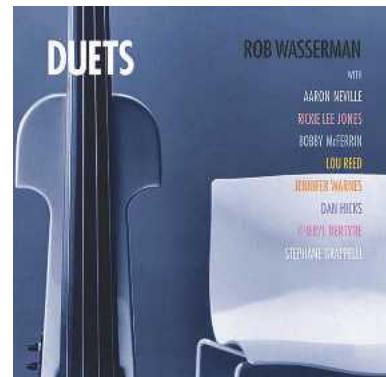
MICHAEL NESMITH

Magnetic South/Loose Salute/Nevada Fighter

Sundazed LP5512-514 (three LPs, coloured vinyl)

Like Gene Clark, Nesmith is another refugee from a famous band who became a pioneer country rocker. This trilogy from 1970-1 forms a magnificent whole, Nesmith breaking away from the constraints of The Monkees (whereas Clark continued in the same vein as his former band). These LPs are stellar on every level: musicians of the highest order, including pedal steel maven Red Rhodes and pianist Glen D Hardin, and songs that deserve hit status: 'Joanne', 'Listen To The Band' and 'Silver Moon'. Even the few covers are inspired, among them Nilsson's 'Rainmaker', Clapton's 'I Looked Away' and Patsy Cline's 'I Fall To Pieces'. So don't miss these this time around – OK? KK

Sound Quality: 95%



ROB WASSERMAN

Duets

Analogue Productions APP118 (180g vinyl)

Far be it for me to renege on my doubts about 'audiophile' LPs played *ad nauseam* at shows, but the middle volume of Wasserman's trilogy deserved acclaim. This 30th anniversary edition follows his death in 2016, adding to the poignancy – we've also lost collaborators Stephane Grapelli, Lou Reed and Dan Hicks. Wasserman was a hugely popular composer and bassist, and a much-admired sideman, associated especially with The Grateful Dead's Bob Weir. Along with the above three are Jennifer Warnes, Aaron Neville ('Stardust!'), Bobby McFerrin, Cheryl Bentyne and Rickie Lee Jones. But Reed doing 'One For My Baby'? You gotta hear it. KK

Sound Quality: 95%



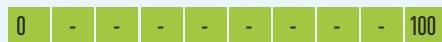
LYNYRD SKYNYRD

(pronounced 'leh-'nérd 'skin-'nérd')

Analogue Productions APP-363-45 (two 45rpm LPs)

It's not the first time the ill-fated band's astounding debut has been 'audiophiled' but this version is arguably the best. OK, for some of you, the two-LPs-at-45rpm shtick may seem overkill, especially applied to a hard rock release, but it does remind us that there may be more in the grooves than we think. If anything, it's a physical manifestation of what drives us as audiophiles. *Everything* here is enhanced: detail, space, tonal balance, the sense of mass, transient attack. Perhaps the biggest benefactor of the format is vocalist Ronnie Van Zant, who could purr or growl. Southern rock at its finest, this LP closed with the aching 'Free Bird' – here, it overwhelms, filling a side. KK

Sound Quality: 95%



AUDIOFILE: DIGITAL



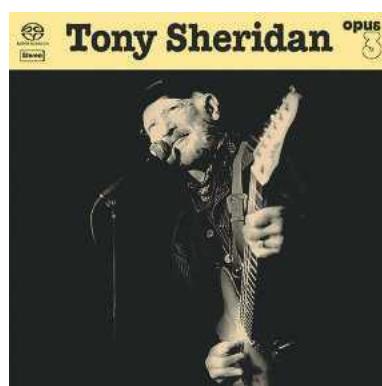
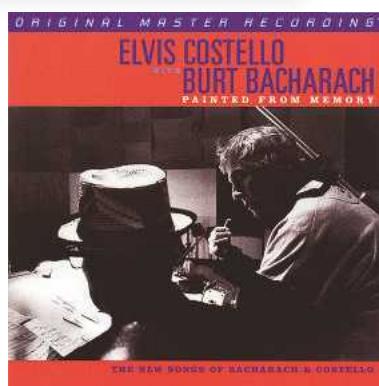
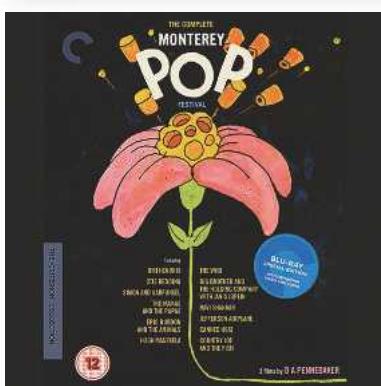
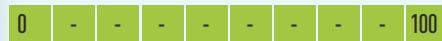
BUDDY HOLLY/THE CRICKETS

Buddy Holly/The "Chirping" Crickets

Analogue Productions CAPP 107-109 SA (mono)

Amazing largesse from the label: Chad Kassem says the albums had too-short running times to issue as separate SACDs, so he created the most desirable two-on-one rock 'n' roll SACD ever. This is the essence of Buddy Holly and The Crickets, two of the three albums released during his lifetime and containing 'Oh, Boy!', 'Not Fade Away', 'Rave On', 'Words Of Love', 'That'll Be The Day', 'I'm Gonna Love You, Too', 'Everyday' and 17 others that didn't just inspire but empowered the entire British Invasion, from The Beatles to The Hollies to The Searchers to The Stones. This pair of milestones from 1957-8 is as responsible as any body of work for shaping the path music followed from then onwards. Utterly magnificent. KK

Sound Quality: 95%



VARIOUS ARTISTS

The Complete Monterey Pop Festival

Criterion Collection 167 (three Blu-ray discs)

Missing footage may yet appear, but this remastering of the most complete packaging yet of the rock festival that started it all, back in '67, is essential listening and viewing. It is even more significant than Woodstock, not least for the breakthrough sets by The Who, Otis Redding, Janis Joplin and Jimi Hendrix. This set – the best I've heard – is worth getting even if you own DVDs of the features on discs 1 and 2: *Monterey Pop, Jimi Plays Monterey and Shake! Otis At Monterey*. Why? Disc 3 contains outtakes, and even 3min of Buffalo Springfield or Moby Grape justifies the effort to find this, one of the most important rock events ever. KK

Sound Quality: 95%



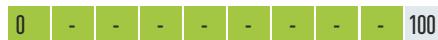
ELVIS COSTELLO/BURT BACHARACH

Painted From Memory

Mobile Fidelity UDSACD2103

When I reviewed this as vinyl [HFN Nov '17], I gave it 90%. Upon reflection, having now heard it through four systems, the LP certainly deserved a top score while this disc is good enough to make you want to save up for an SACD player. To recap, this is Costello's collaboration with the great Burt Bacharach, released in 1998. While I don't consider EC to be in the running as the best interpreter of Bacharach, he earned a pass with this album because all of the songs are co-authored. Burt is no great shakes as a vocalist, so Costello did the singing. Listen and you'll understand why this magnificent disc earns its high rating. The results are staggering, even via its CD layer. KK

Sound Quality: 90%



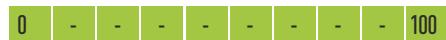
TONY SHERIDAN

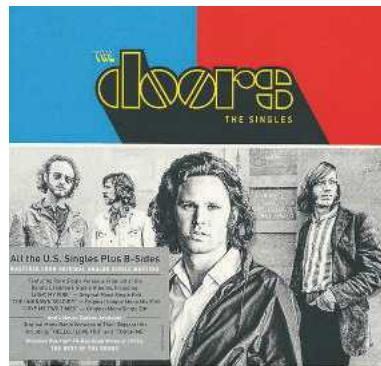
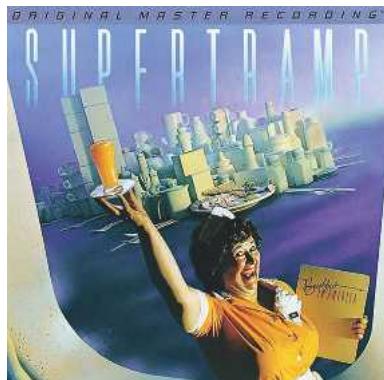
Tony Sheridan and Opus 3 Artists

Opus 3 CD24001 (stereo SACD)

If the name rings no bells, then you aren't a hardcore Beatles fan: Sheridan was the singer backed by The Fab Four on their first-ever recordings. He co-wrote a song with the young McCartney, 'Tell Me If You Can', and it kicks off this superb SACD. This is (I think) only the second time it's been recorded. That's enough for some of us to want this showcase for Opus 3 artists, but it is also a tribute to Sheridan, who died in 2013. That lovely, warm, open Opus 3 sound, with plenty of air and space, fine musicianship, frames Sheridan's compositions which are, it turns out, mighty fine. Who knew? A hard-rocker turned singer-songwriter troubadour. A joy. KK

Sound Quality: 95%





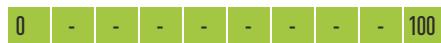
SUPERTRAMP

Breakfast In America

Mobile Fidelity UDSACD2189

Is there an audiophile alive, at least anyone over the age of 50, who doesn't already own this in some form or another? I have no idea how many times it's been reissued – Discogs lists hundreds of editions, and MoFi issued it on LP as far back as 1982 and gold CD in 1990. Possibly targeting a new audience, MoFi has presented a gloriously glossy, airy SACD transfer that's so lush and open that it sounds as fresh as it did in 1979, when it graced the turntables of every hi-fi shop on the planet, and voiced every hi-fi show demo one might attend. Pretentious, bombastic, prog-ish – yes, it's all of those. But just try *not* getting caught up in its epic sweep. KK

Sound Quality: 95%



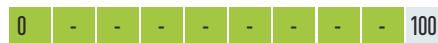
THE DOORS

The Singles

Elektra/Rhino 081227934675 (mono/stereo; two CDs + Blu-ray)

How about an incredible bargain? You'll find this set for under £20, which gives you, in original mono or stereo where applicable, all of The Doors' US singles' A- and B-sides and rare radio mixes, on two CDs for a total of 44 tracks. Then there's the ultimate bonus: the last fold in the three-segment pack contains *The Best Of The Doors* 11-track collection from 1973 in its original quadraphonic mix on a high-res Blu-ray audio disc. Musically, The Doors were exceptional, creating in a painfully short period a dozen hits and anthems like 'Light My Fire'. I haven't seen such incredible value in years, and even completists will find much to cherish. KK

Sound Quality: 90%



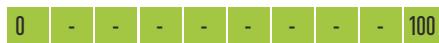
BLOOD SWEAT & TEARS

Bloodlines

Analogue Productions CAPP BSTBOX SA (four discs)

As responsible as any for inventing 'Big Band Rock' – following the Buckinghams but beating Tower of Power, Chicago and the Flock by a year or more – BS&T showed that serious musicianship could blend seamlessly with blues-y rock, without sinking to the excesses of prog-rock. This set contains their first four albums, from the Al Kooper/Blues Project origins of their debut, *Child Is Father To The Man*, to the height of their hit-making period with *BS&T 4*, with increasing quantities of classical content, eg, Satie. Prescient selection of material from Nilsson, Tim Buckley, Laura Nyro and Randy Newman, sublime performances, superb sound. A triumph. KK

Sound Quality: 95%



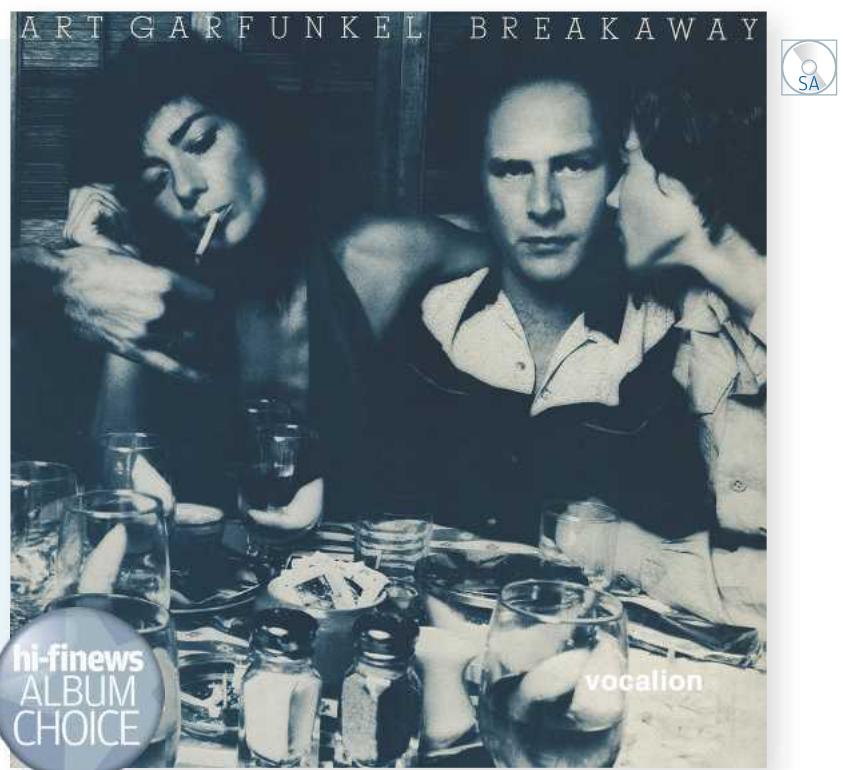
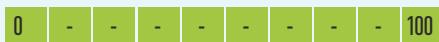
ART GARFUNKEL

Breakaway

Vocalion CDSML8537 (multichannel SACD)

A hi-fi show fave since 1975 because of its lush sound, *Breakaway* has long-merited an SACD, not least as a way to access the subtle quadraphonic mix. And it's a treat. Despite Paul Simon's recent biography, which recounts the bitter schism that forged solo careers out of the best-loved duo of the 1960s, Garfunkel's albums were nearly as satisfying as those with Simon because of his tasteful choice in material. He delivered an exquisite take on The Beach Boys' 'Disney Girls', the lovely title track from Gallagher & Lyle and a sublime version of Stevie Wonder's 'I Believe (When I Fall In Love It Will Be Forever)'. With stellar backing musicians, including Simon & Garfunkel session players, it's a sumptuous, nay, luscious gem. KK

Sound Quality: 95%



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HI-RES DOWNLOADS



CZECH PO/JIRI BELOHЛАVEK

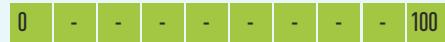
Smetana: Má Vlast (96kHz/24-bit, FLAC)

www.highresaudio.com; Decca 483 3187

Smetana's six symphonic poems 'My Homeland' have assumed nationalistic significance following German and Russian occupations and have featured in Prague's Spring International Music Festivals since 1952. These live performances, issued as a tribute to Jiří Bělohlávek, who died in May 2017, are edited from two May '14 concerts. It wasn't the composer's intention that the movements should be seen as an entity, nor could he have anticipated the popularity of 'Vltava' (No 2) which

depicts the flow of the great river, with colourful 'hunt' and 'wedding party' episodes. (Fellow-Czech conductor Rafael Kubelík made four recordings and if you don't know this music then try his 1990 Prague concert performance on YouTube.) The playing for Bělohlávek is superb and the sound, from the Smetana Hall, is excellent too: plenty of impact and colour, with very convincing soundstaging. CB

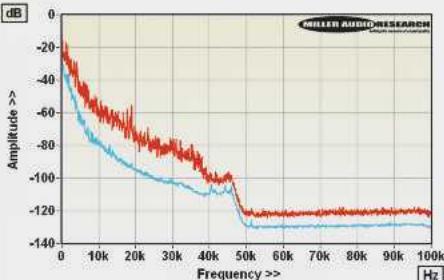
Sound Quality: 95%



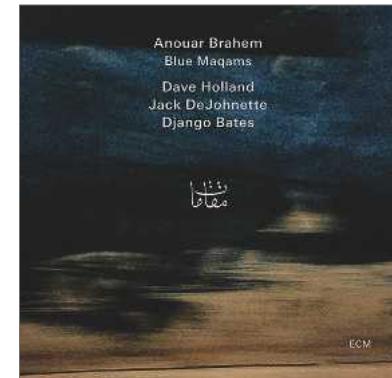
OUR PROMISE

Following our Investigation feature [HFN, Jun '11] where we examined the claimed quality of high-resolution downloads, *Hi-Fi News & Record Review* is now measuring the true sample rate and bit-depth of the HD music downloads reviewed on these pages. These unique reviews will be a regular source of information for those seeking new and re-mastered recordings offered at high sample rates and with the promise of delivering the very best sound quality. (Note: asterisk in headings denotes technical reservation explained below.) PM

LAB REPORT



Evidently recorded with care to utilise the maximum available dynamic range and avoid peak compression [a maximum of -1dBFS on 'Šárka' (No 3) – Graph, above], this genuine 96kHz recording is an exemplar of the high-res art. PM



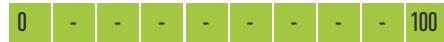
ANOUAR BRAHEM

Blue Maqams (96kHz/24-bit, FLAC)

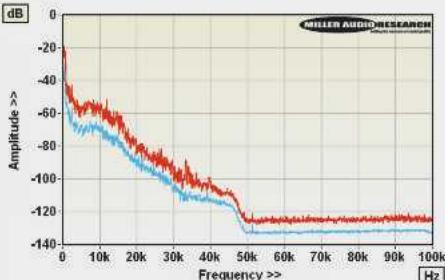
www.highresaudio.com; ECM Records 576 7265

For *Souvenance*, Anouar Brahem's last release and an album of the month [HFN May '15], this master of the oud enlisted a string orchestra to join some of his regular accompanists, but this time he's started afresh. Having recruited the great ex-Miles bassist Dave Holland (who played on Brahem's 1997 album *Thimar*), the renowned fusion drummer Jack DeJohnette was a natural choice. British composer Django Bates was suggested by ECM co-founder Manfred Eicher, who'd just been recording the pianist's Belové Trio, and though absent from the contemplative track 'Bahia', Bates brings a wealth of ideas elsewhere. In the final, aptly-titled 'Unexpected Outcome', what seems at first a simple, even jazz pulse from Holland soon develops into something far more subtle. The fascinating sound of Brahem's oud, caught sublimely, will have you hooked. SH

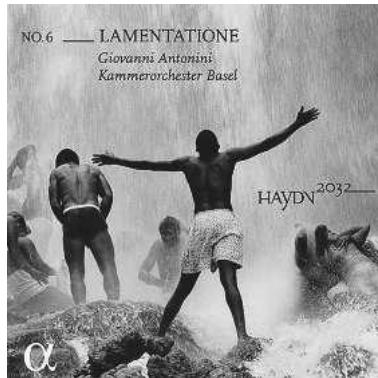
Sound Quality: 95%



LAB REPORT



While the final mix is mastered with few peaks soaring beyond -5dBFS there are some occasional bursts of ultrasonic distortion detected at a very low level. Otherwise this is a clean 96kHz recording with no spurious signals. PM



BASEL CO/GIOVANNI ANTONINI

Haydn: Symphonies Nos 3, 26, 30, 79
(88.2kHz/24-bit, FLAC)

www.highresaudio.com; Alpha ALPHAG678

Subtitled 'Lamentatione' this album download comes with a 54-page PDF booklet populated with relevant b/w Magnum photographs – a classy affair. It's the sixth volume in a period instrument cycle shared with Antonini's Il Giardino Armonico [see HFN Sep '16, p92 for Decca's similar project under Ottavio Dantone]. Symphony No 26 in D-minor, the 'Lamentatione', is thought to contain an imagined conversation between God and a sinner for the *Adagio* (whereas Haydn mostly thought in terms of pure music). It contrasts with the C major 'Alleluia', while No 79 unusually boasts five movements. Symphony No 3 (c.1762) boasts a fugal finale *alla breve*. The playing is throughout superb and the sound beautifully balanced with an appreciable ambience from a hall within the city's Landgasthof Riehen. CB

Sound Quality: 90%



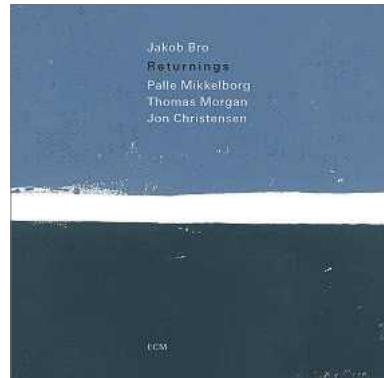
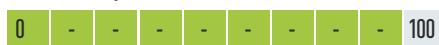
BOBO STENSON TRIO

Contra La Indecisión (96kHz/24-bit, FLAC)

www.highresaudio.com; ECM 578 6976

Piano-trio jazz doesn't get much more perfect than this, both in terms of performance and recording – the latter particularly special, even by the high standards of the typically-reliable ECM label. With bassist Anders Jorlin, who has worked with Stenson for more than 30 years and is credited with more than half of the compositions here, and superb percussionist Jon Fält, Stenson's trio is the same last heard on 2012's *Indicum*. Here they kick off with the track that gives the album its title, written by Cuban guitarist Silvio Rodríguez. And it's instantly clear what's on offer: close-recorded, delicate piano, weighty yet subtle bass and gloriously detailed work on skins and cymbals – just listen to their driving, rhythmic exploration of Erik Satie's 'Élégie', totally delicious! An album never less than totally accomplished, on all levels. AE

Sound Quality: 90%



JAKOB BRO

Returnings (96kHz/24-bit, FLAC)

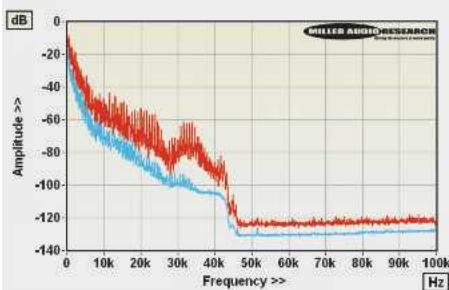
www.highresaudio.com; ECM Records 670 5850

OK, so it's an ECM recording, and that already sets expectations of sound quality – richly realised in this set by Danish guitarist Bro, who combines an effortless command of his instrument with superb support from the other musicians here, and isn't averse to throwing in some studio trickery when required. You could be forgiven for thinking Bro was nothing more than a band member from the opening track, 'Oktober'. Here trumpeter Palle Mikkelborg evokes Miles Davis with his haunting playing, but the band, which also includes drummer Jon Christensen and bassist Thomas Morgan – who duet winningly on the opening of 'View' – are both tightly-knit and fully able to improvise, as the performers indulge to their advantage. That's much in evidence on the title track, complete with delay effects to make things even odder, and reinforce the album's fascination. AE

Sound Quality: 90%

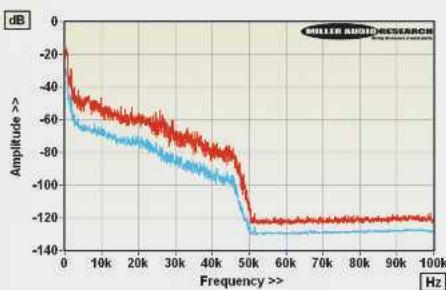


LAB REPORT



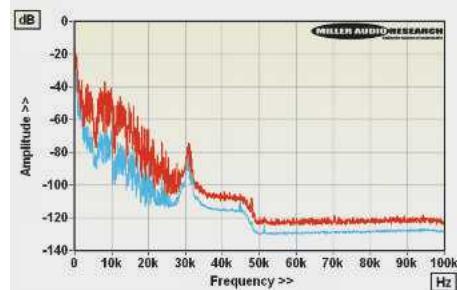
The vibrancy of the massed strings is instantly visible here in the burst of harmonics from the Minuet, Symp No 3, though the notch and reflection at 28kHz looks unusual. Otherwise it's an 88.2kHz file with good dynamic range. PM

LAB REPORT

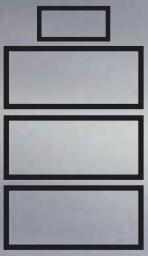


With so much rock/pop/blues material being recorded into the endstops, it's a blessed relief to discover a contemporary jazz trio that makes almost perfect use of the available dynamic range. Recorded at 96kHz, peaks rarely exceed -6dBFS. PM

LAB REPORT



Superb use of the available dynamic range here, particularly in the percussion and drums throughout trk 4 ('View') and the trumpet in trk 2/3 [see Graph] but – not for the first time with ECM – clear evidence of spuriae, here at ~30kHz. PM



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HI-RES DOWNLOADS



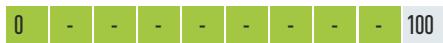
TOMASZ STANKO NEW YORK QT

December Avenue (88.2kHz/24-bit, FLAC)

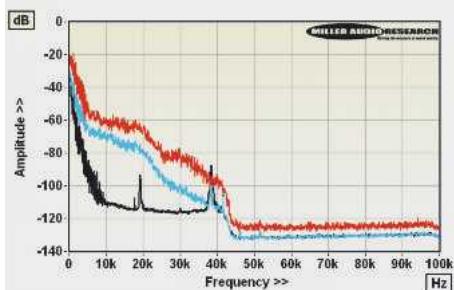
www.highresaudio.com; ECM 5726302

The latest from a stellar group – drummer Gerald Cleaver, pianist David Virelles, bassist Reuben Rogers, and trumpeter Stanko – *December Avenue* is a collection of beautifully rendered tone-poems. There is a great delicacy to the musicianship – they are all fully engaged with their bandmates – and each track seems approached as if they have all the time in the world, and all the space they could possibly need to explore it. Even at his most upbeat, Stanko has a sweetly mournful quality. This collection is maturely intelligent, emotionally resonant, aesthetically unassailable, and gorgeously executed, without a hint of cliché. It draws you in, lifts you up, carries you along, and ultimately deposits you in a better place: the perfect accompaniment for romantic interludes and midnight reveries. Plus, to my ears, this is a spectacularly good-sounding recording. *BW*

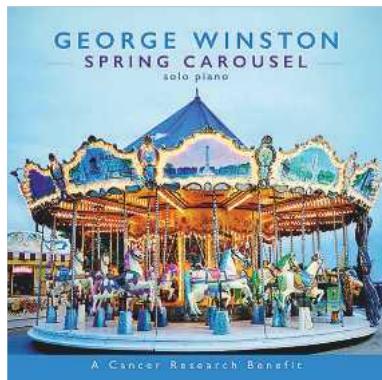
Sound Quality: 90%



LAB REPORT



Recorded at Studios La Buissonne in the South of France, the spectral energy of Tomasz Stanko's trumpet and Gerald Cleaver's brushstroke percussion fills the ~40kHz bandwidth, but note spurious at 19kHz and 38kHz [black trace]. PM



GEORGE WINSTON

Spring Carousel (96kHz/24-bit, FLAC)

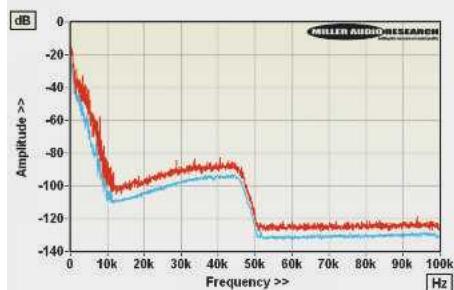
www.highresaudio.com; Dancing Cat/RCA Records (no cat no)

Definitely smarter than your average charity album, this one has been produced by the veteran pianist to benefit the Southern Californian hospital where he received bone transplant surgery a few years back, spending his recovery time in the hospital auditorium composing the pieces here. OK, so all very worthy, but this is also a great album, both in the ease and fluidity of the playing and above all in the superb sound quality on offer. For anyone thinking that dynamics are all about the punch of a rock track or the *Sturm und Drang* of a big orchestra, the way this set captures the power, light and shade of Winston's piano will be quite an eye-opener. From the tinkling 'Carousel 1' (track 1) through to the infectious 'Requited Love', this is a masterclass in vibrant, enchanting piano recording. A superb performer at work, in luminous sound, and all in a good cause. *AE*

Sound Quality: 90%



LAB REPORT



George Winston's 14th album was recorded by Howard Johnston onto analogue tape (hence the elevated noise) with subsequent mastering in the digital domain at 96kHz. A thundering dynamic range is still maximised, however. *PM*



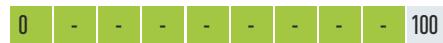
MARC COPPEY, DEUTSCHES SO BERLIN/KIRILL KARABITS

Bloch Schelomo/Dvorak Cello Concerto; Klid (96kHz/24-bit, FLAC)

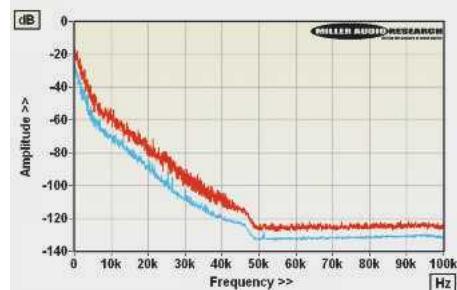
www.highresaudio.com; Audite 97734

Marc Coppey is a French cellist now 47, his talents first spotted by Menuhin, whose repertoire spans from Bach to Boulez and Carter. He plays a 1711 Matteo Goffriller cello – and here, of course, faces enormous competition in the Dvořák from the span of Casals to Fournier, Rostropovich and Isserlis. But this is a real discovery – an almost completely satisfying account of the Concerto with expressive but restrained solo playing with superbly matching accompaniment from Karabits. Hear how the wonderful horn solo in the exposition is exactly mirrored by Coppey! My one reservation is that his very first entry is mic'd up, although a more normal perspective follows. *Schelomo* follows a similar musical path that's restrained but very effective. *CW*

Sound Quality: 90%



LAB REPORT



Recorded at 96kHz/24-bit, the engineers for this Audite release have successfully utilised the fullest dynamic range without compression or clipping. Free of spurious too, save for a small spike at 39kHz, this is an exemplary download. *PM*

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AWARD
2017



Award
2017



HIGHLY
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GOLDEN
GROOVY
10/10



NCF BOOSTER-Signal
Connector & Cable Holder



GOLD
AWARD
WINNER



GOLD
AWARD
WINNER



AWARD
2018



AWARD
2017



Award
2017



HIGHLY
RECOMMENDED



GOLDEN
GROOVY
10/10



AWARD
2017



AWARD
2016

Special Prix

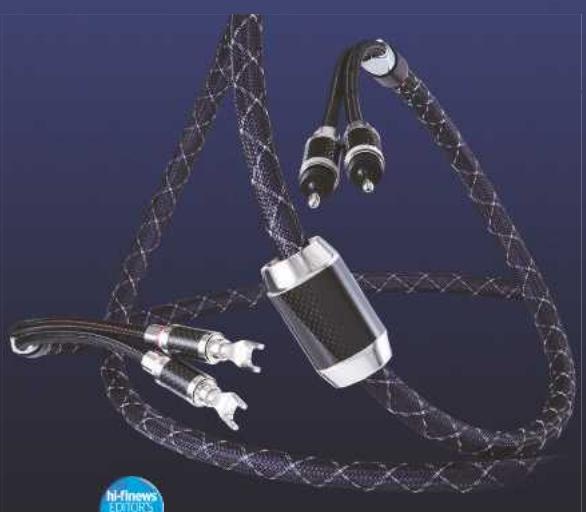
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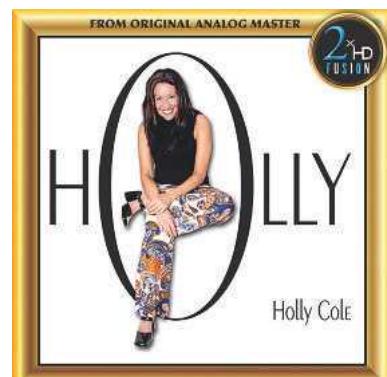
**RCO/DANIELE GATTI**

Mahler Symphony No 4 (192kHz/24-bit, FLAC)

www.eclassical.com; *RCO Live RCO18004*

When he was with the Royal Philharmonic Orchestra Daniele Gatti made a well-received Conifer CD of this symphony, and when with the Concertgebouw joined a line of principal conductors stretching back to Mengelberg (in 1939) to have recorded Mahler 4. Haitink has done so four times, with a very attractive 2006 version with Christine Schäfer on this same RCO label. Gatti's soprano here is Julia Kleiter – very naturally balanced with the orchestra. The sleigh-bell outbursts in the finale have surely never been taken as fast as here? But Gatti's reading vividly brings out all of Mahler's contradictions – if you think this is a 'comfortable' work this will all be a revelation. And it's full of tiny details brought out in superb engineering from two Nov '17 performances, with full orchestra filling out the fine acoustic space and with a highly detailed soundstage. CB

Sound Quality: 90%

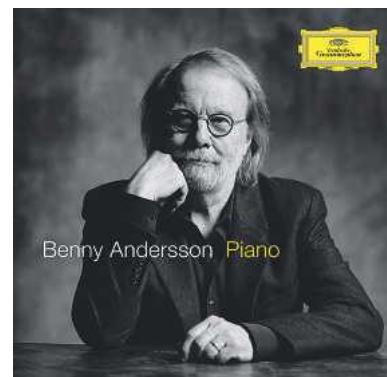
**HOLLY COLE**

Holly (192kHz/24-bit, FLAC; DSD64)

www.highresaudio.com; *Universal 7263982*

Canadian singer Holly Cole has long been a hi-fi demo mainstay – I was first introduced to tracks by 'Horico' many years ago in Japan – and there's no reason why this latest album won't prove just as popular. To say that this first studio album for half a decade is business as usual is certainly no criticism. Indeed, Cole has a winning way with standards, always bringing something fresh, and her voice sounds as relaxed, smoky and persuasive as ever. Take a listen to her simple but lush take on 'Teach Me Tonight', or the peppy reading of 'I've Got A World That Swings', and it's clear she's very much on top form. With musicians both familiar and new, including original trio pianist Aaron Davis and bassist David Piltch, she also duets on two tracks with Wyycliffe Gordon. The recording isn't the most dynamic you'll ever hear, but it's still hugely enjoyable throughout. AE

Sound Quality: 85%

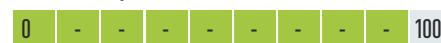
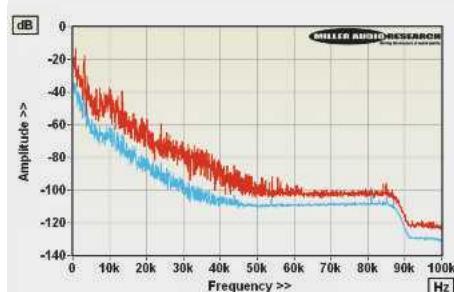
**BENNY ANDERSSON**

Piano (96kHz/24-bit, FLAC)

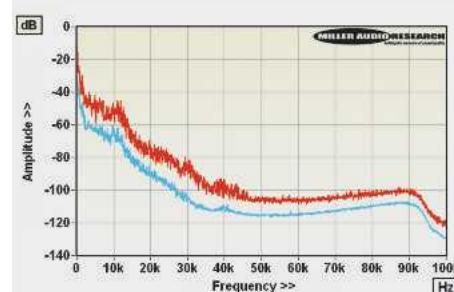
www.highresaudio.com; *DG 479 8143*

That sombre cover portrait sets the tone for Benny Andersson's latest solo project, which consists of 21 tracks from his decades-long career reinterpreted for piano. The mood is generally melancholy, and the album largely concentrates on Andersson's post-Abba material, including songs written for musicals such as *Chess*, as well as his current 'group' – the Benny Andersson Orkester. Inevitably, though, it's the handful of familiar Abba classics that stand out. The piano version of 'My Love, My Life' lacks the lush harmonies of the original, but the bittersweet melody still shines through. He even springs the occasional surprise – livening the mood with a burst of Scott Joplin ragtime on 'Thank You For The Music'. So while *Piano* might not be essential listening for Abba fans, it's still a fascinating overview of this classic songwriter's later career. CJ

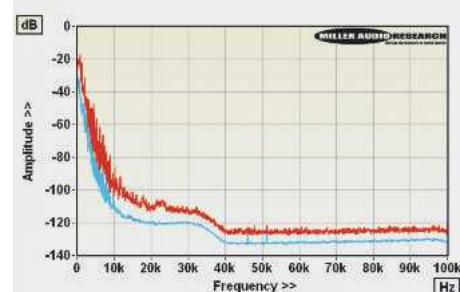
Sound Quality: 85%

**LAB REPORT**

This DXD (352.8kHz) recording employed Merging Technologies ADCs and editing/mixing software. The noise floor is a little high while downsampling to 176.4kHz followed by asymmetric upsampling to 192kHz was probably unnecessary. PM

LAB REPORT

'2xHD' mastering process aside, trks 2, 5 and 9 (recorded in Noble Street Studios, Toronto) contain rather more ultrasonic treble on the percussion feed than those recorded at Sear Sound, NYC. Otherwise it's clean with 'analogue' noise only. PM

LAB REPORT

Sensitively – and very cleanly – recorded, this genuine 96kHz file shows what a digital rendering of a piano should look like [see Graph, above]: few harmonics beyond 12kHz, no signs of peak overload or spurious tones. It's a good 'un! PM

ALBUM REVIEWS

ROCK



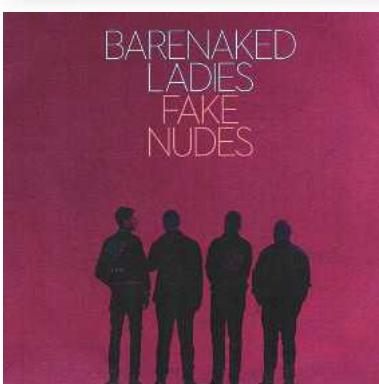
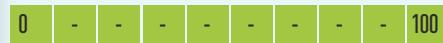
SKYEGE

Hello World

Flow Records 3700551782307

This is the stunningly luscious debut album by a French collective led by composer, author and producer Benoit Carré collaborating with Kiesza, Stromae, NZCA Lines' Michael Lovett and the Mercury Prize-nominated C Duncan. I won't pretend to understand how it's done, but they're apparently using Artificial Intelligence algorithms to replicate musical styles, and combining them with newly written songs to create extraordinarily enjoyable, often danceable, electronic-sounding pop. This includes 'Hello Shadow', featuring Kiesza, the quirkily beautiful, glitch-infested 'Magic Man' and the hauntingly tranquil slow groove of 'Cryyyy'. Much borders on indescribable in the way Kraftwerk were back in '76. Fantastic. JBk

Sound Quality: 95%



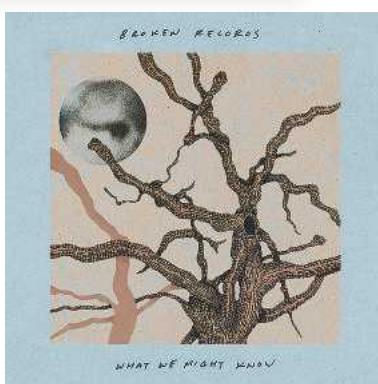
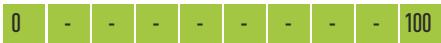
BARENAKED LADIES

Fake Nudes

Vanguard Records 7203308

After 29 years and a dozen award-winning albums, this lot still never fail to deliver. There are more exciting bands, and more successful bands, but there are few who consistently produce albums that I invariably enjoy. Millions of people probably only know them for their theme song to TV's *Big Bang Theory*, but those millions are missing a world of exquisitely crafted, beautifully sung songs with lyrics which veer from wryly witty to heart-achingly sad. On this album, 'Sunshine' is a lovely metaphor, explaining how 'some-times the things we love so much just eat us up from the outside in', and 'Bringing It Home' is a spirit lifter with an irresistible hook. JBk

Sound Quality: 95%



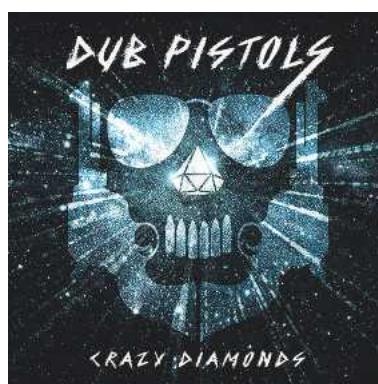
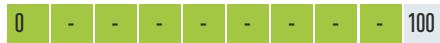
BROKEN RECORDS

What We Might Know

J Sharp Records JSHARPO07P

I haven't heard an album like this in years. It has the shameless rock 'n' roll drive of Springsteen at his best, combined with the intelligent lyrical depth of The Waterboys. Previous releases have, arguably, been subtler and more contemporary, with an Arcade Fire vibe, but this feels like they just want to rock out and be truthful to the things they believe in. The torrent of words unleashed in 'The In Between', juxtaposed against its soaring hook, is simply euphoric, and the deliberately underplayed interjections of strings, horns and woodwinds throughout the album suggest this is a band that can now achieve anything they set their minds to. JBk

Sound Quality: 90%



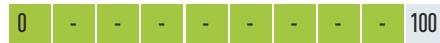
DUB PISTOLS

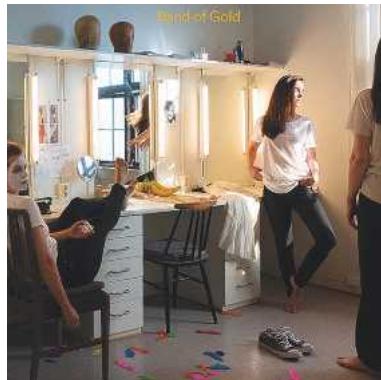
Crazy Diamonds

Sunday Best Recordings SBESTCD81P

After 20 years of delivering some of the most earthshakingly wondrous bass mash-ups and dub reggae grooves known to mankind, Dub Pistols are still playing mostly in medium-sized clubs when they'd sound utterly fantastic in arenas and stadiums. This seventh album, finds them still mixing it up with merry abandon, sounding like a bunch of wide-eyed teenagers cutting loose in a Ladbroke Grove basement. Apart from the grovalicious soundscapes of cuts like 'La La La', 'Rising' and 'Lively', there are tasty vocal guest spots by Beenie Man, Too Many T's, Lindy Layton and Cutty Ranks, plus a bunch of powerful political messages to absorb while you skank. JBk

Sound Quality: 90%





BAND OF GOLD

Where's The Magic

Jansen Records Jansen080CD

With this exceptionally gifted duo, Nina Mortvedt and multi-instrumentalist/producer Nikolai Haengsle, Norway can justly lay claim to being in the vanguard of the Scandinavian pop/rock headcharge. Their sonic invention never stops and their instrumental prowess is always in evidence, but best of all they write beautifully understated gems of pop songs, carried along on Mortvedt's warm and mellow vocals. 'Away With You' is a simply gorgeous swirl of timbres and textures, 'I Wanna Dance With You Again' is '80s AOR perfection, and even the simpler 'Into The Void' is slowly transformed into a garden of psychedelic delights. JBk

Sound Quality: 95%



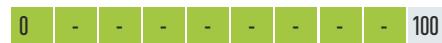
LARAAJI

Sun Gong/Bring On The Sun

All Saints Records WAST054DL (two discs)

I've been submerging myself in this man's shimmeringly gorgeous ambient soundscapes since the late '70s, and I've only just learned that his real name is Edward Larry Gordon. That's slightly disappointing, but his 50th album is not. His primary instrument is the zither, a multi-stringed harp-like device mostly associated with folk and country music, but Laraaji combines it with electronics to explore its micro-tonal possibilities, often in the form of slowly evolving drones. Disc 1 of this two-disc set features two long explorations of electronically-treated hammered gong sonics, while Disc 2 features eight shorter, more varied outings. Cosmic? You bet. JBk

Sound Quality: 90%



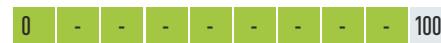
SCOTT MATTHEWS

The Great Untold

Shedlo Records SHEDCD03; LP: SHEDLP03

This sixth album from Wolverhampton's Ivor Novello Award-winning singer-songwriter is easily his finest yet. It's also, arguably, his simplest. Largely acoustic, it was recorded in his home studio and in 'acoustically resonant local churches'. It sounds gorgeous, and you'll listen in vain for pounding drums or screaming guitar solos. Mostly you're hearing nothing more than a glistening acoustic guitar and a man singing, but his use of the resonances and ambient characteristics of the spaces he records in often suggest orchestrations or choral sections. The gorgeous 'Cinnamon' is a masterclass in how to conjure up a vast, cavernous ambience in a home studio. JBk

Sound Quality: 90%



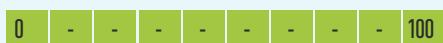
OLD CROW MEDICINE SHOW

Volunteer

Sony Music 544256

When did we last offer a bluegrass/country album as 'Album Choice'? I don't remember, so why should you? Happily, OCMS more than deserve the accolade. From the high velocity banjo and fiddle attack of the opener 'Flicker And Shine' to the romantic, sentimental first-love tale of the closer 'Whirlwind', the Nashville-based sextet never miss a trick. Ultimately, of course, it's country music, so don't expect anything new, but when it comes to picking with joyful conviction and unbridled enthusiasm, this lot are truckloads better than your average be-stetsoned crossover twit. Whether you're boot-scootin' to 'Shout Mountain Music' or wipin' away a tear to 'Old Hickory', this is jug-blowin' magic. JBk

Sound Quality: 95%



OLD CROW MEDICINE SHOW



VOLUNTEER

ALBUM REVIEWS

ROCK



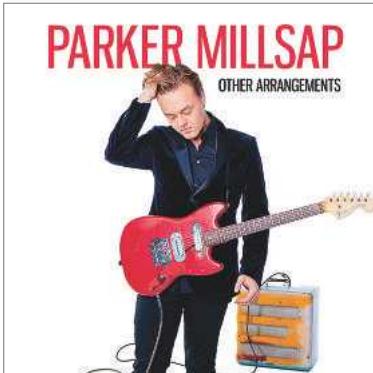
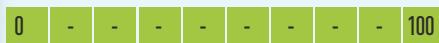
PROTOJE

A Matter Of Time

Mr Bongo Records MRBCD176

In a world overcrowded with wannabe Ed Sheeran clones, it's always a delight to be reminded that there are still artists capable of surprising even jaded rock critics like me. Protoje is one such, with his stimulating blend of cosmic reggae, laid-back toasting and beautifully integrated electronic orchestration. His voice is sublimely chilled and his tunes, if not overflowing with melody, are always redeemed by ingenious hooks that are hard to resist after a couple of listens. Lyrically too, he's always on the ball with sparky socio-political observations that also work as exquisite pop music. He's been around since 2005, but despite acclaim, hasn't yet broken through to the mainstream. Maybe his time is now. JBK

Sound Quality: 95%



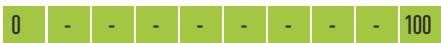
PARKER MILLSAP

Other Arrangements

Thirty Tigers/Oklahoma OKRA004

Three albums into his career, this could be the one to break Parker Millsap to a huge, global audience. His songs have everything required for mainstream acceptance – strong melodies, memorable hooks, tasty electric and acoustic guitar licks. Plus, there are lyrics that can be instantly understood by any listener but which, on second and third listens, reveal further subtleties of meaning. Though always strongly masculine, his music is also touchingly vulnerable, and his phrasing is perfect. His subtle mix of rock, blues and country influences could make Parker Millsap the next big thing for anybody who loves a good song well sung. JBK

Sound Quality: 95%



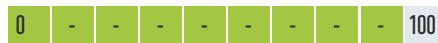
JUDITH OWEN

Rediscovered

Twinkly Records TWR 00158

Acclaimed as a singer-songwriter for over two decades, Judith Owen has often included cover versions in her live performances but, rather than just using them as safety-net crowd-pleasers, she delights in transforming unlikely songs into vehicles for her particular performance strengths. Finally, to the delight of many, she's released an entire album of those quirky covers. As you'd expect, songs like The Beatles' 'Blackbird' and the old chestnut 'Dream A Little Dream Of Me' suit her perfectly, but the real fun comes with Deep Purple's 'Smoke On The Water' and Drake's 'Hotline Bling', which Owen transforms into perfect piano ballads. JBK

Sound Quality: 90%



TANCRED

Nightstand

Polyvinyl Record Co HII042

Formerly best-known as guitarist of Minneapolis indie darlings Now Now, Jess Abbott has since established herself as a thoughtful and sparky songwriter with her new band Tancred. Happily, she's not abandoned her solid-rocking cred, and if songs like 'Queen Of New York' don't instantly get you bopping in your seat, the problem is yours not hers. She's no guitar virtuoso, and producer Lewis Pesacov wisely places the emphasis on her propulsive rhythms, her vulnerable but in-your-face vocals and her smart lyrics. This kind of spunky, outsider pop-rock isn't the coolest of genres right now, but Abbott definitely deserves your attention. JBK

Sound Quality: 90%





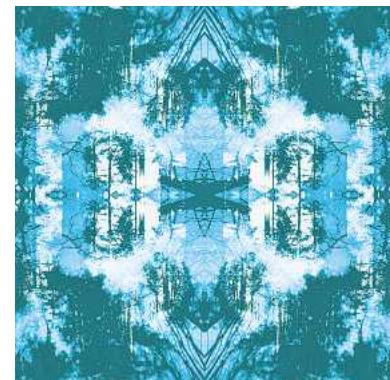
TUNE-YARDS

I Can Feel You Creep Into My Private Life

4AD 0052

Formerly a one-woman band, Tune-Yards is now officially a duo. Based in Oakland, California, band leader Merrill Garbus and her collaborator Nate Brenner fashion songs which are spiky, quirky, complicated and yet accessible and enjoyable. Essentially they're an electronic pop band, but songs like 'Now As Then' and 'Honesty' are a bit more avant-garde than the pop charts would find easy to accommodate. Merrill Garbus has an exquisitely beautiful voice, which she subjects to all kinds of electronic distortions, delays and samples in an endless pursuit of new sounds and textures in this 12-track release. An incredibly stimulating album. JBk

Sound Quality: 95%



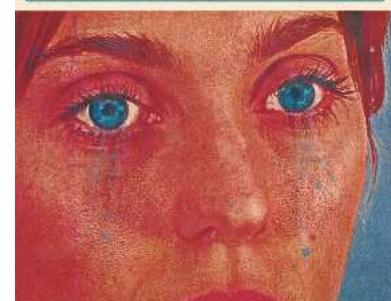
TUSKS

Dissolve

One Little Indian TPLP1358CDP

Tusks is, like U.S. Girls, just one woman, Emily Underhill. She's hardly a household name, but her self-produced debut EP, *Ink*, clocked up over a million Spotify streams plus plays on Radio 1, 6Music and BBC London. *Dissolve* is her first full-length album and it's a thing of great beauty, with Underhill's lovely voice underscored by diaphanous electronics and, sometimes understated trip-hoppy percussion. She's capable of everything from intimate whispers to cathedral-filling resonances, and her acclaimed co-producer Brett Cox makes the most of her enormous potential. Her songs are richly melodic and they are well worth getting to know. JBk

Sound Quality: 90%



U.S. GIRLS

In A Poem Unlimited

4AD 0046

U.S. Girls is actually Meg Remy, working with various collaborators to create captivatingly quirky pop. Pigeon-holing this exceptionally-gifted woman is tricky, because she mixes musical genres with merry abandon while somehow creating a coherent whole. 'M A H' starts with a Spectorish drum lick but transforms quickly into an early '80s disco gallop which effectively obscures its protest lyric, while 'Rosebud' opens on a jaunty string riff before becoming a faintly Latin slow groove overlaid with breathless Diana Ross-style vocals. Remy rarely fails to spike her pop facades with angry lyrics attacking religion, politics and human folly of all kinds! JBk

Sound Quality: 95%



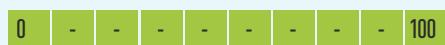
TOURE KUNDA

Lambi Golo

Soulbeats Records SBR05; LP: SBR104

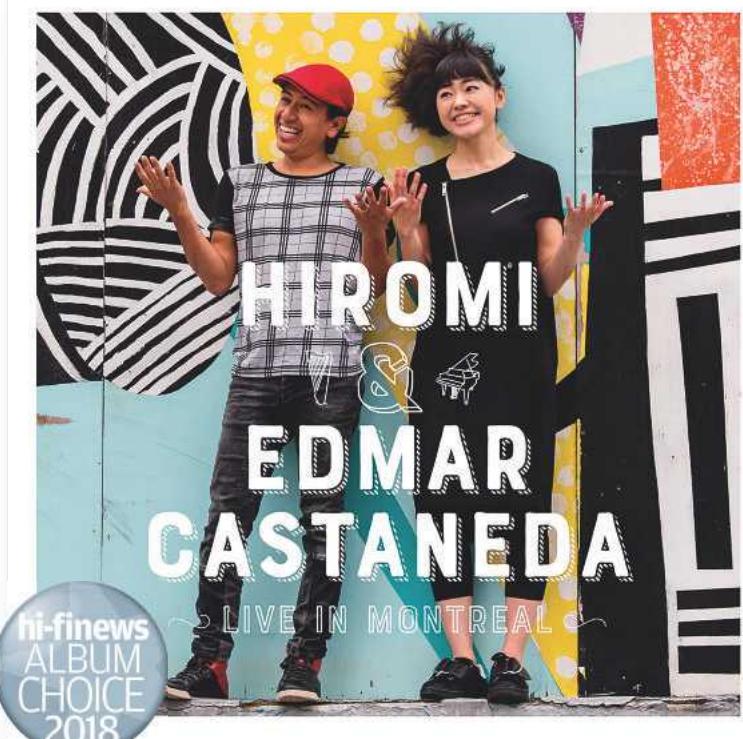
After 40 years together, Senegalese duo Toure Kunda are back with their umpteenth album, still sounding very much like the youthful, vital world music innovators they were back in 1980. With guests including Carlos Santana and Manu Dibango, this album overflows with rippling, undulating African rhythms and drum patterns that challenge listeners not to dance, overlaid with the beautiful vocals of the band's founders Ismaila and Sixu Tidiane Touré. Standout tracks include the soulful 'Sene Bayo' and the pulsating 'Sotolal', but the album works best as one single entity, an energising bath in positive grooves to be enjoyed in one long sitting. They've laid low for a decade, but *Lambi Golo* should put them back on top. JBk

Sound Quality: 95%



ALBUM REVIEWS

JAZZ



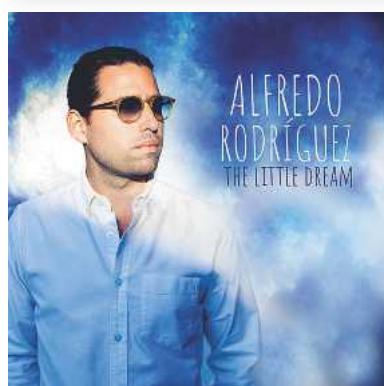
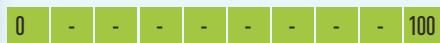
HIROMI & EDMAR CASTANEDA

Live In Montreal

Telarc TEL00026

Colombian harpist Castaneda moved to NY as a teenager to join his father, discovered jazz and, encouraged by Paquito d'Rivera, went on to an international career. When he met Hiromi backstage at the 2016 Montreal Jazz Festival, the two were wowed by each other's sets, and for the 2017 festival they joined forces. Here 'A Harp In New York' makes a buoyant and festive opener, then a breakneck 'Cantina Band' from *Star Wars* becomes a riot of smashing chords, while on Castaneda's 'For Jaco' the two wittily trade dancing bass lines. But the centrepiece is Hiromi's superbly descriptive four-part suite 'The Elements', exploiting the unique sound palette of piano and harp to the full. Joyful, exciting and unmissable. SH

Sound Quality: 95%



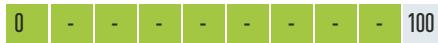
ALFREDO RODRIGUEZ

The Little Dream

Mack Avenue MAC1130

Back in 2006 a young Cuban was one of 12 pianists chosen to play at the Montreux festival. There he caught the ear of Quincy Jones, who has continued as Rodriguez's US mentor and co-producer since 2009. This fourth album, using wordless vocals as well as piano and Rhodes, may be seen against the topical background of the US immigration debate. Such was the rapport between Rodriguez and his trio partners Munir Hossn and Michael Olivera that they completed the recording in two days, giving it a great feeling of lightness and spontaneity. And amid his originals he plays 'Besame Mucho' beautifully, imbuing this Mexican standard with depth too. SH

Sound Quality: 85%



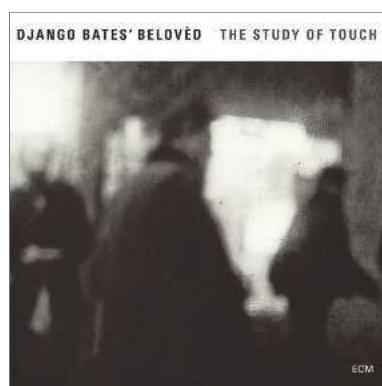
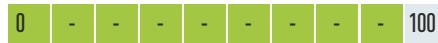
KENNY BARRON QUINTET

Concentric Circles

Blue Note 6747897

Over the decades Barron has played and recorded, seemingly, with everybody who was anybody, but for a few recent years his own highly-accomplished trio went unrecorded, until 2015's *Book Of Intuition*. Now, along with Kitagawa on bass and Blake on drums, we hear saxophonist Dayna Stephens and trumpeter Mike Rodriguez, and Barron makes masterly use of the classic quintet format. In a sequence of mellow, alluring and effortlessly intricate originals, his subtle modulations often look set to keep the music floating endlessly, but then touch down at last in satisfying resolution. Barron celebrated a big birthday in June, but he's clearly 75 years young. SH

Sound Quality: 90%



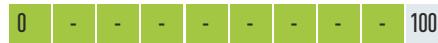
DJANGO BATES' BELOVED

The Study Of Touch

ECM 573 2663

In 2015, when ECM's Manfred Eicher suggested a trio project, Bates happily agreed. He'd known bassist Petter Eldh and drummer Peter Bruun since they'd been his students at Copenhagen Rhythmic Conservatory. They recorded *Beloved Bird* in 2010, and in 2012, *Confirmation*, still echoing Charlie Parker but with more of Bates's own music. Several of those pieces appear in fresh versions here, 'Sadness All The Way Down' becoming the opener and bookended by a new 'Happiness All The Way Up' to close. In the year that produced his *Sgt Pepper* big-band extravaganza, this extraordinary musician could still be stunning as composer and pianist. SH

Sound Quality: 90%





COMPACT DISC



SUPERAUDIO



DVD



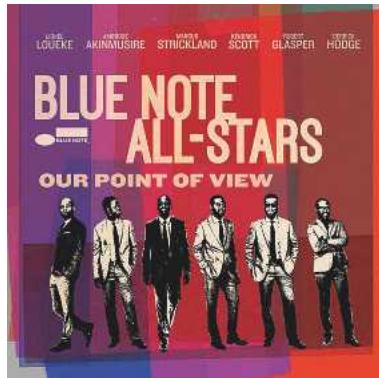
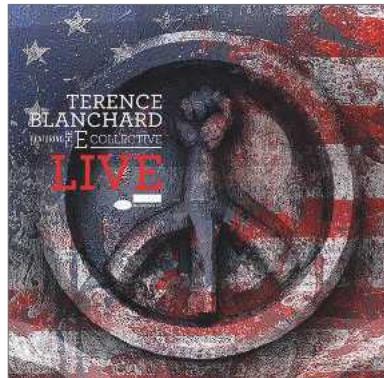
BLU-RAY



VINYL



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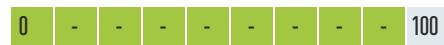
TERENCE BLANCHARD FEATURING THE E COLLECTIVE

Live

Blue Note 6746254

Blanchard conceived the stylistically-eclectic E Collective 'to inspire young people that didn't want to play jazz to play instrumental music on its highest level'. Touring in Europe, he realised that he couldn't ignore the climate of gun violence at home, and this led to the group's powerful 2015 album *Breathless*. The mission continues in this live album. With the themes strongly led by the somewhat unvarying sound of Blanchard's enhanced trumpet – while pianist Fabian Almazan and guitarist Charles Altura contribute excellent solos too – the music expresses anger and chaos, but also hope and healing. SH

Sound Quality: 90%



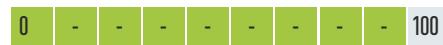
BLUE NOTE ALL-STARS

Our Point Of View

Blue Note 5777491 (two discs)

No connection with the sextet that made *Blue Spirit* in 1996 – these All-Stars date back to 2014 and the label's 75th anniversary. As does the album title, initially the group's name too. Recording followed the 'BN75' tour, every member contributing to the writing with 'egos left at the door'. Thus Marcus Strickland starts out his 'Meanings' with a beautiful unaccompanied sax solo, but then the whole group comes in to build the piece into a well-rounded suite. But there's a strong connection to history too, with an exploration of 'Witch Hunt' and, most notably, guest appearances from both Wayne Shorter and Herbie Hancock on Shorter's 'Masquelero'. SH

Sound Quality: 85%



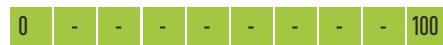
STEFANO BOLLANI

Que Bom

Alobar AL1001

The brilliant Italian pianist launches his own label and takes another opportunity to highlight his enduring love of Brazilian music, mainly offering his own sprightly and engaging tunes but with some superstar guests who bring their own. We hear legendary singer/guitarists Caetano Veloso and Joao Bosco, and there's a typically zippy contribution from bandolim virtuoso Hamilton de Holanda. And as with *Carioca* (2008), Bollani enjoys wonderful support from the Brazilian rhythm team of Jorge Helder, bass, Jurim Moreira, drums and Armando Marçal, joined this time by a second percussionist, Thiago da Serrinha. An uplifting and delightful album. SH

Sound Quality: 95%



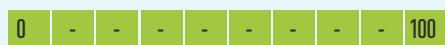
JOHN COLTRANE

Both Directions At Once: The Lost Album

Impulse! 6749295/6749299 (two discs); LP: 6749300/6749301 (two discs)

Astonishing that a complete Coltrane studio session could lie unreleased for 55 years. But here is the classic quartet, recorded by Van Gelder in March '63 and sounding as if it were yesterday. The master was lost, so the source is a reference tape Coltrane took home from the date. There are two sparkly, untitled originals, and studio takes of 'One Up, One Down', a title until now found only on a live album. There's a piano-less 'Impressions' where McCoy Tyner lays out and an early 'Nature Boy' very different from the 1965 album version. Takes for the seven-track 'Standard' album were selected by none other than Ravi Coltrane, while the 'Deluxe' double albums add a set of alternates. Collectors won't hesitate for a second. SH

Sound Quality: 95%





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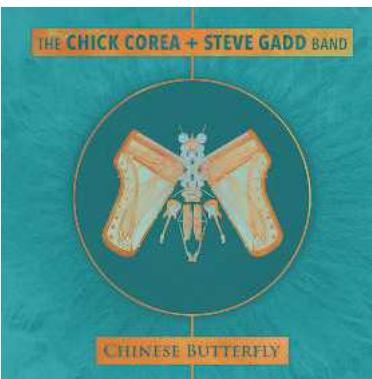
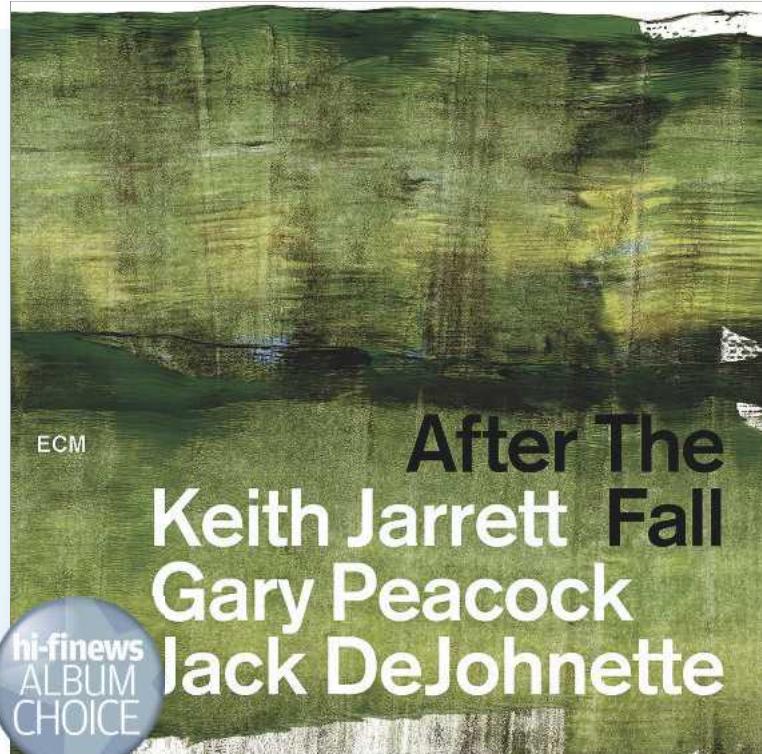
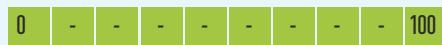
KEITH JARRETT/GARY PEACOCK/ JACK DEJOHNETTE

After The Fall

ECM 671 6506 (two discs)

This previously unissued Nov '98 DAT recording captures Jarrett's first public performance since the Fall 1996 Genova solo concert heard in his *Multitude Of Angels* set, thus also his first since falling ill with CFS. After rehearsing with the trio he was able to set up a concert near home, with the Newark Performing Arts Centre little more than an hour's drive away. He chose familiar material, from the bebop tunes 'Scapple From The Apple' and 'Bouncing With Bud' to standards like 'I'll See You Again', 'When I Fall In Love' and even 'Autumn Leaves' (an exuberant workout). For Jarrett at the time this was 'a kind of scary experiment', but now it sounds like a joyful and masterful return. SH

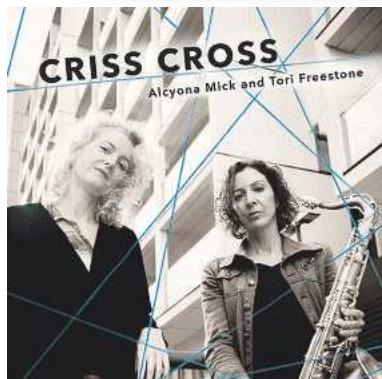
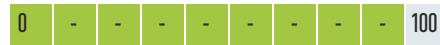
Sound Quality: 95%



THE CHICK COREA + STEVE GADD BAND Chinese Butterfly

Concord Jazz 7204218 (two discs); LP: 7204225 (three discs)
Following last year's tour comes this previously recorded studio album. Gadd's drums propelled many of Corea's 1970s recordings, but the freshness and energy of this new band make it hard to believe that the co-leaders first met 50 years ago. With Steve Wilson on sax and Lionel Loueke on guitar, plus Cuban bassist Carlitos Del Puerto and Venezuelan percussionist Luisito Quintero, they kick off appropriately with John McLaughlin's 'Chick's Chums', while CD2 brings an atmospheric reprise of 'Return To Forever', with guest vocal by Philip Bailey. But most of the music was newly written by Corea, with many a nod to his Latin roots. SH

Sound Quality: 85%

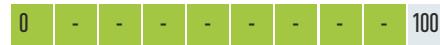


ALCYONA MICK AND TORI FREESTONE Criss Cross

Whirlwind Recordings WR4722

They started playing together for fun, but in the studio these two agile and mutually attuned musical minds have created a brilliant duo album with pace, wit, rhythm and emotional depth. The opener is 'Hermetica', a breakneck dance featuring Freestone's quicksilver flute and a leaping, wordless guest vocal from Brigitte Bereha. Then comes the calm of 'Charmed Life', Mick's sumptuous piano framing Freestone's fabulous tenor solo, and before they get to the title track, Mick does Monk with elegant ease on 'Strange Behaviour'. Bereha reappears movingly on 'Press Gang' from Freestone's *Barranca*, and then the duo close with that album's title tune. SH

Sound Quality: 85%



CÉCILE McLORIN SALVANT Dreams And Daggers

Mack Avenue MAC1120 (two discs); MAC LP1120 (three LPs)

This third album from the deservedly-feted singer is a double that interleaves studio-recorded originals with a great programme of live music. For her own material, penetrating and thought-provoking, she enlists the strings of the Catalyst Quartet, and the 'Daggers' appear in the chilling fragment 'Red Instead'. The live tracks, excellently recorded before an appreciative Village Vanguard audience and with pianist Aaron Diehl in wonderful form, range from transformations of unlikely show tunes such as 'Never Will I Marry' and 'If A Girl Isn't Pretty' to a superb rendition of Kurt Weill's and Langston Hughes' 'Somehow I Never Could Believe'. Brilliant. SH

Sound Quality: 95%



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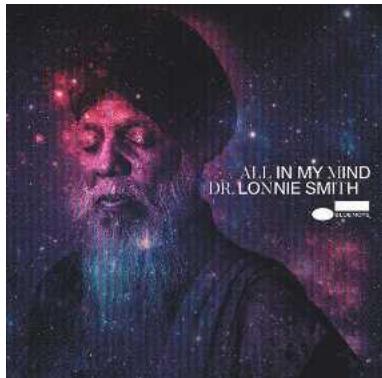
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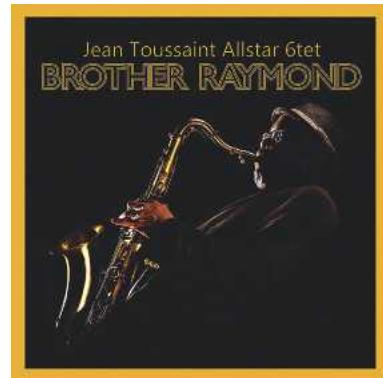
DR LONNIE SMITH TRIO

All In My Mind

Blue Note 6721872

Ebullient as ever, the Hammond wizard was 75 years young when he celebrated his birthday at New York's Jazz Standard in July 2017, and this live recording proves that he could still hold an audience spellbound. Providing the propulsion is drummer Johnathan Blake, with Jonathan Kreisberg's relaxed and warm-sounding guitar a perfect foil for Smith's organ pyrotechnics. Paul Simon's '50 Ways To Leave Your Lover' becomes a long, joyful jam with another regular cohort, Joe Dyson, sitting-in on drums. The title tune, first recorded decades ago, becomes more powerful than ever here with a haunting vocal from American mezzo Alicia Olatuja. SH

Sound Quality: 90%



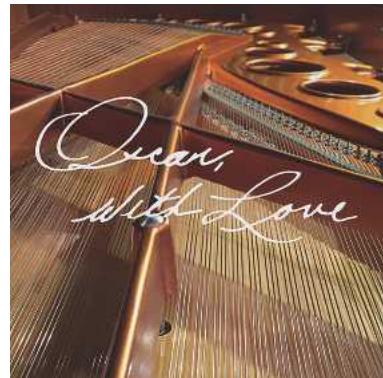
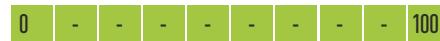
JEAN TOUSSAINT ALLSTAR 6TET

Brother Raymond

Lyte Records LR040

'I'll be a Jazz Messenger for life,' says the St Thomas-born, New York-raised saxophonist, who spent more than four years in Art Blakey's band before moving to the UK in 1987. Like his mentor, Toussaint believes in fostering young talent, as he did with his 'Roots And Herbs/The Blakey Project' of 2015. Several 'Young Lions' from that group appear here, with bassist Dan Casimir a key element. Built around ear-catching themes and great solos from the front line of Toussaint, trumpeter Byron Wallen and trombonist Dennis Rollins, the lineup varies – eg, with Jason Rebello just one of three pianists. But the music roars along consistently, in the spirit of Art Blakey. SH

Sound Quality: 95%



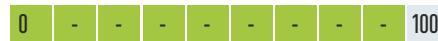
VARIOUS ARTISTS

Oscar, With Love

Mack Avenue MAC1134 (three discs)

According to Kelly Peterson, the idea for this commemoration was born when, five years after her husband's passing, Bösendorfer's head piano technician told her 'This piano needs to be played'. So a host of well-known pianists were invited to play OP's own piano. With heartfelt respect, they recorded Peterson compositions, or their own tribute pieces. And it's astonishing to hear players as different as Chick Corea, Ramsey Lewis and Hiromi on the same piano in the same room. Originally issued in 2015, this 36-track 3CD set is now re-released both as a standard digipack and in deluxe form with a 100-page booklet. A 5LP vinyl set is promised for later. SH

Sound Quality: 90%



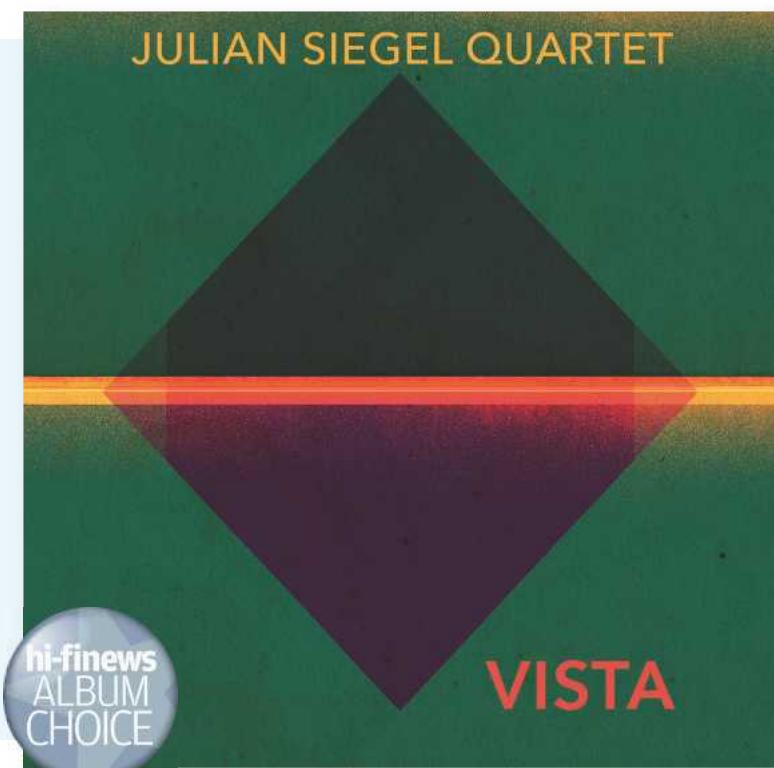
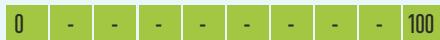
JULIAN SIEGEL QUARTET

Vista

Whirlwind Recordings WR4717

Busy saxophonist Siegel has guested with the greats and built a solid reputation with his own groups. Here the lineup is unchanged from his 2011 album *Urban Theme Park* [Basho Records] with pianist Liam Noble joined by the dynamic and exciting rhythm team of bassist Oli Hayhurst and drummer Gene Calderazzo. These two have worked together for decades, recently as half of the Pharoah Sanders quartet, while Calderazzo is also a member of Partisans, the group co-led by Siegel with guitarist Phil Robson. Here they play as one, stoking up the excitement. Above all there's Siegel's own drive, warm sound and endless flow of ideas, his lines seeming somehow three-dimensional, even at breakneck tempos. SH

Sound Quality: 95%



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ALBUM CHOICE

ALBUM REVIEWS

CLASSICAL



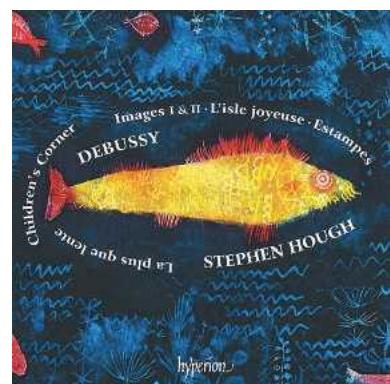
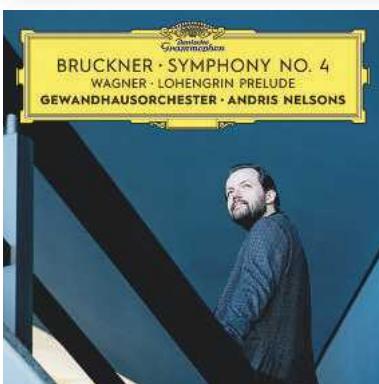
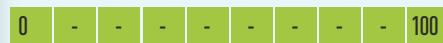
RACHMANINOV

Piano Concertos Nos 2 and 3
Evgeny Sudbin, BBC SO/Sakari Oramo

BIS BIS-2338 (SACD; downloads up to 96kHz/24-bit resolution)

The Russian pianist – now London-based – completes his Rachmaninov concertos cycle with this very natural sounding coupling, produced at Maida Vale Studios by Take Five's Marion Schwebel. The Steinway D is not set too forward and Oramo's divided violins clarify the scoring. From the very start of the 'Brief Encounter' No 2 it's apparent that the performances will be exceptional – a true matching partnership with soloist and conductor. And this is true of No 3 especially, Rachmaninov's greatest writing for piano with its huge first-movement cadenzas, where Sudbin takes the more difficult option. BIS sets a new benchmark coupling with this SACD. CB

Sound Quality: 95%



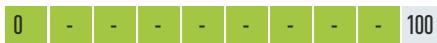
BRUCKNER/WAGNER

Symphony No 4/Lohengrin: Act 1 Prelude
Leipzig Gewandhausorchester/Andris Nelsons

DG 479 7577 (downloads up to 96kHz/24-bit resolution)

When first exposed to No 4, the 'Romantic' Symphony (Klemperer conducting), I thought it was a dreadful piece of music – Beecham too complained that Bruckner was all unresolved 'fits and starts'. And in a way I can understand that teenage reaction, although today I revel in hearing the work. And Nelsons clearly revels in conducting it, the opening horn motif emerging from near silence, the brass resplendent throughout and the final culmination of the work magnificent – that motif binding everything together. The sound is rich. The BPO/Jochum is another distinguished DG option for No 4. CB

Sound Quality: 90%



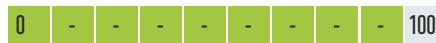
BRUCKNER

Symphony No 6
Bavarian RSO/Bernard Haitink

BR Klassik 900147 (downloads up to 48kHz/24-bit resolution)

Composed in an unusually happy period in his life, and a work not subjected to endless later revisions, Bruckner's Symphony No 6 deserves more popularity than it receives. There is some especially touching music in the *Adagio*, where Bernard Haitink has shortened the timing of his first (1970) Concertgebouw recording by 2m, yet without compromising its spaciousness. In this live performance from last May other movements are 1-1½m longer. The sound is excellent, with the Bavarian RSO horns arrestingly vivid in their various fanfares, a bloom of hall ambience enhancing Haitink's pure-conduit-like reading. CB

Sound Quality: 90%



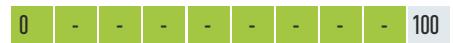
DEBUSSY

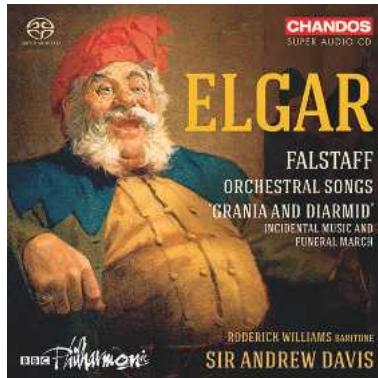
Estampes; Images I and II; Children's Corner; L'Isle joyeuse; La plus que lente
Stephen Hough

Hyperion CDA68139 (downloads up to 96kHz/24-bit resolution)

With Stephen Hough's fastidious technique and ear for colour it's surprising that we've heard so little Debussy from him until now: 'Clair de Lune' (twice), an earlier *La plus que Lente* and three related tracks on his Hyperion 'Spanish Album'. In these fine recordings from two distinguishable venues, and playing a Yamaha grand, Hough unravels the many layers and exposes the concealed emotions of these pieces. He makes you wonder if 'Mouvement' influenced Stravinsky's fairground scenes in *Petrouchka*; and Hough's forthright 'Golliwog's Cake-walk' is wittily timed. CB

Sound Quality: 90%



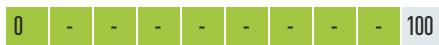


ELGAR

Falstaff; Grania And Diarmid (excerpts); 10 Songs
Roderick Williams, BBC PO/Sir Andrew Davis

Chandos CHSA 5188 (SACD; downloads up to 96kHz/24-bit res)
Sir Andrew is no stranger to *Falstaff*, with 1998 BBC SO/Warner and 1974 NPO/Lyrita recordings. Unlike the ruddy, coarse figure shown on the cover this is an affectionate portrait of a nimble figure – wonderful soft playing by the BBC Philharmonic, and every orchestral detail pinpoint sharp. The 'Incidental Music' and 'Funeral March' from *Grania And Diarmid* were written for an Anglo-Irish play in 1901, while the vocal tracks include 'The King's Way', where Elgar reused music from his *Pomp & Circumstance* March No 4, and the tongue in cheek oddity 'The Smoking Cantata' (also recorded on the Hallé label). CB

Sound Quality: 90%

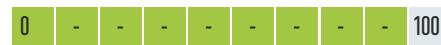


HANDEL

Concerti a due cori, HWV332-4
Freiburger Barockorchester

Harmonia Mundi HMM 905272 (downloads up to 96kHz/24-bit res)
Simon Heighes, in his invaluable booklet note, explains that here Handel capitalised on the fact that after the failed Jacobite uprising many guardsman instrumentalists became redundant, and these six- or seven-movement Concertos ('for wind choirs') would make use of them. But also the music was written to go with his oratorios, etc, introduced at the Covent Garden season of 1747-8, and he even 'trailed' bigger works by borrowing and re-orchestrating material from them. Recorded at the Teldex Studio Berlin in 2014, the playing – period instruments, of course – has a splendour and exuberance that fits perfectly. CB

Sound Quality: 90%

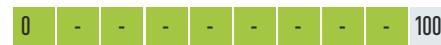


HAYDN

Keyboard Sonatas Hob.XV1:32, 40, 49, 50
Paul Lewis

Harmonia Mundi HMM902371 (downloads up to 96kHz/24-bit res)
Mozart apart, Paul Lewis's discography has closely mirrored his mentor Alfred Brendel's although the 11 Haydn sonatas with Brendel [Philips] excluded No 49 which opens this CD. Some of Haydn's sonatas were written with specific, talented persons in mind, able to deal with their intricacies – they are a lot more challenging technically than Mozart's. Typically, the opening of No 49 has a fragment that keeps popping up, but Lewis's adroitness means we never feel we've heard it too often. His playing in the Allegro of No 50 (a wonderful sonata whose *Adagio* Beethoven must surely have known) is quite marvellous – selfless too. CB

Sound Quality: 90%



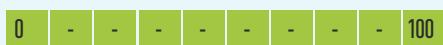
BEETHOVEN

The Diabelli Variations
Martin Helmchen

Alpha ALPHA386 (downloads up to 96kHz/24-bit resolution)

From the way Martin Helmchen articulates the opening theme, you feel this is going to be a very special CD. And so it turns out, a version of the *Diabelli Variations* where, while savouring the insights of each movement you are keen to hear what he'll do with the next. But there's no eccentricity and the way Helmchen lets you glimpse the Diabelli source, even where Beethoven's writing has become remotely distanced, is magical. Unlike most versions, his is broken up with pauses – notably before the more introspective variations. And this makes good sense. Helmchen has some pertinent observations on the music in the booklet interview – well worth pondering. CB

Sound Quality: 95%



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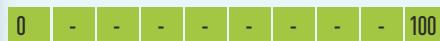
PROKOFIEV

Violin Concertos Nos 1 and 2; three ballet excerpts (arr)
Lisa Batiashvili, COE/Yannick Nézet-Séguin

DG 479 8529 (downloads up to 96kHz/24-bit resolution)

Arranged by her father with solo violin parts, single movements from *Romeo And Juliet*, *Cinderella* and *Love Of Three Oranges* (the all too brief 'March' should put a smile on your face) top and tail the two Concertos. Batiashvili and Nézet-Séguin are fully of one mind here, and the recorded sound is outstanding – notably the placing and impact (without boosted balances) of percussion in Concerto No 2. These artists reveal a richness of invention that I hadn't fully appreciated before. One tiny quibble in No 1(ii) is that more abrasiveness would have helped the harsh 34s episode at 1m 02s, but that's not Batiashvili's style and her highwire acrobatics are indeed marvellous. CB

Sound Quality: 95%



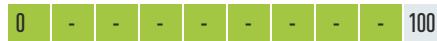
RICHARD STRAUSS
OBOE CONCERTO
Wind Serenade
Wind Sonatina No. 2
ALEXEI OGRINTCHOUK
Royal Concertgebouw Orchestra
ANDRIS NELSONS

**RACHMANINOV**

Symphony No 1
Philharmonia Orchestra/Vladimir Ashkenazy

Signum SIGCD484 (downloads up to 96kHz/24-bit resolution)
Written when he was 22, Rachmaninov's Symphony No 1 received an indifferent premiere (under Glazunov) and a critical mauling, so he locked up his manuscript – later lost. Fortunately, Soviet musicologists were able to reconstruct it from parts and a piano reduction, and it was performed for a second time in 1945. Ormandy provided our first Western stereo recording and the BBC took up part of the finale for its *Panorama* signature tune! The symphony has all the Rachmaninov hallmarks and, with the Philharmonia on top form, Ashkenazy secures an absorbing, beautifully paced account in fine sound. CB

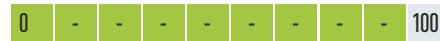
Sound Quality: 90%

**SCARLATTI**

16 Keyboard Sonatas
Federico Colli

Chandos CHAN10988 (downloads up to 96kHz/24-bit resolution)
Gold medallist in the 2012 Leeds Competition, the Italian pianist (now 30) is newly signed to Chandos, making his debut in Sonatas only three of which are duplicated in the two excellent Sudbin BIS discs. But Colli takes a very different approach – and he's definitely not offering keyboard wizardry of the Horowitz/Michelangeli kind. Instead, and grouping the pieces under 'chapter headings' ('The Power of Illusion', etc) he thoughtfully explores the expressive possibilities of these pieces, compellingly varying dynamics and timings in repeats. He receives a beautifully clean recorded sound at Potton Hall. CB

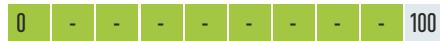
Sound Quality: 90%

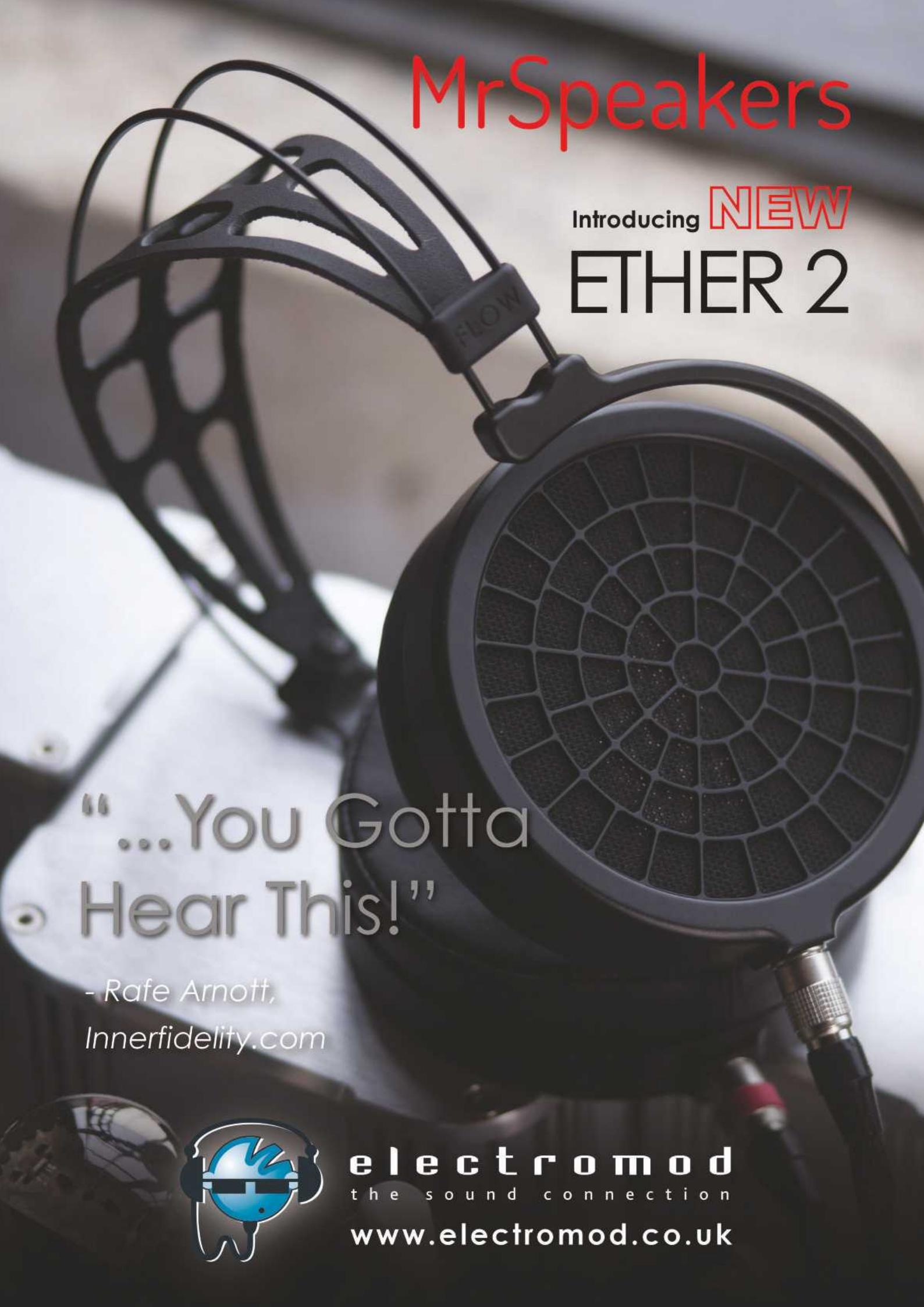
**R STRAUSS**

Oboe Concerto; Wind Serenade; Wind Sonatina No 2
Alexei Ogrintchouk, Concertgebouw Orch/Andris Nelsons

BIS BIS-2163 (SACD; downloads up to 96kHz/24-bit resolution)
Written in 1945 for GI John de Lancie (later Philadelphia principal) Strauss's Oboe Concerto was his most pleasing work for soloist and orchestra. It's played here by the Concertgebouw's principal oboist who directs the two chamber pieces – the 39m *Sonatina* also a late work. By contrast the short Wind Serenade dates from 1881. (Linn has recently issued these two pieces with *Metamorphosen*.) Ogrintchouk gives a captivating performance of the Concerto: ballerically graceful and expressive. In the *Sonatina* Strauss revisits an old form and fills it with his unique writing style. Excellent sound from BIS here too. CB

Sound Quality: 90%





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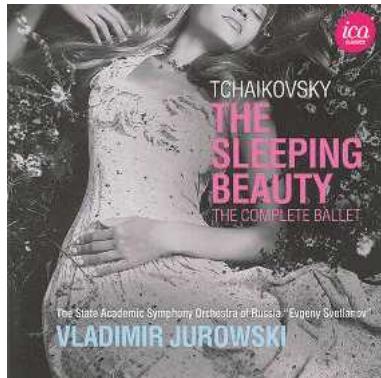
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VAUGHAN WILLIAMS

A London Symphony
(1920 version)

Sound Sleep

Orpheus with his Lute

Variations for Brass Band

Elizabeth Watts

Mary Bevan

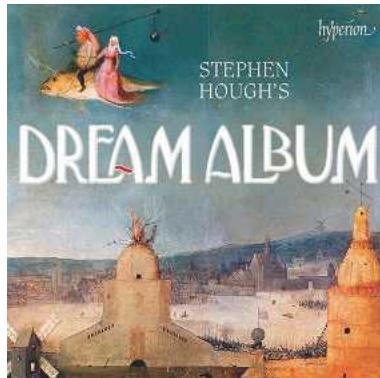
Kitty Whately

Royal College of Music Brass Band

BBC Symphony Orchestra

Martyn Brabbins

Hyperion



TCHAIKOVSKY

The Sleeping Beauty (complete)
State Academic Symphony Orchestra Of Russia/
Vladimir Jurowski

ICA Classics ICAC 5144 (two discs; downloads to 44.1kHz/16-bit res)

The score for the second of Tchaikovsky's three great ballets is almost never heard in its entirety in the theatre, notes David Nice in his exhaustive booklet note. But this is a 2013 live performance given in Moscow's Tchaikovsky Concert Hall – Jurowski says it's quite a demand on the players' stamina at 159m. And in places he had to steer them towards a more Stravinsky-like manner. Except for the odd off-stage noise here and there, I would not have suspected a live event – Pletnev's DG set with the Russia Nat Orch, good though it is, doesn't have quite the same dramatic grip. CB

Sound Quality: 90%



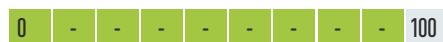
VAUGHAN WILLIAMS

'A London Symphony' (1920 rev); 'Sound Sleep';
'Orpheus With His Lute'; Variations for Brass Band
Soloists, RCM Brass Band; BBC SO/Martyn Brabbins

Hyperion CDA68190 (downloads up to 96kHz/24-bit resolution)

Martyn Brabbins has chosen the 1920 published revision of this symphony (first recorded, but not in complete form, by Sir Dan Godfrey back in 1925) which has an especially admired passage in the slow movement, which was later excised by Vaughan Williams. The Hyperion couplings are Rosetti and Shakespeare settings for soprano voice(s) from c.1903, and the 1957 *Variations* in its original form. The darkness of the River Thames seems omnipresent in this very fine account of the Symphony, and the street cries and dances are brilliantly coloured. CB

Sound Quality: 90%



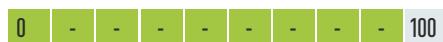
DREAM ALBUM

Stephen Hough

Hyperion CDA68176 (downloads up to 96kHz/24-bit resolution)

Yes 'By The Sleepy Lagoon' is here but the only really dreamy pieces in this 27-track compilation are the two lullabies composed by Hough – the second distinctly Debussy-like in places. Music, he says, suspends (dream-like) the ordinary aspects of our lives. Hough's cheeky *Radezky March* should make you smile – there are six Hough originals and nine transcriptions, while chosen composers range from Albeniz to Sibelius. The track listing tells you something about why he's chosen the pieces. Recorded at the Wyastone Estate concert hall in Sept '16 Hough plays a Yamaha CFX. Maybe slight all told, but a suitable late night listening companion. CB

Sound Quality: 85%



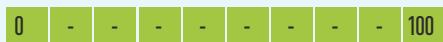
TIPPETT

Symphonies Nos 1 and 2
BBC Scottish SO/Martyn Brabbins

Hyperion CDA68203 (downloads up to 96kHz/24-bit resolution)

These two Symphonies (1945 and '57) were first recorded for Argo/Philips LPs by Sir Colin Davis [now Decca 483 2928], while the composer's own BBC SO version of No 2, made when he was 88, finally surfaced on NML. Convinced neither by serial composition or 'English Pastoralism' Sir Michael Tippett forged a style of his own, combining elements of early music polyphony, neoclassicism (hearing Vivaldi prompted the *Allegro vigoroso* opening of the later symphony) and jazz. Recorded with great immediacy by Simon Eadon, Martyn Brabbins' performances have an incisiveness and intonational accuracy way beyond the composer's own example. CB

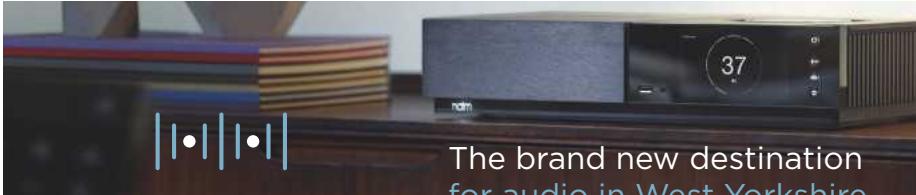
Sound Quality: 95%



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LAST WORD

OFF THE LEASH!

KEN KESSLER TELLS IT LIKE IT IS...

New lessons learned and audiophile rediscoveries as **Ken Kessler** sums up his past year in audio

A yearbook is the obvious place to look back on the past 12 months, even if a magazine also has a December issue. And blow me down if – for me at least – 2018 wasn't a bumper year. It wasn't just about hardware, but that certainly featured heavily.

Suffice it to say, after too many years of bemoaning the contraction of the high-end world, I have decided to make do with what we have. To hell with crass mass-market manufacturers and other forces at odds with the quest for ultimate sound quality.

TOTAL FOCUS

Three elements of musical pleasure in particular have renewed my vigour, leading me repeatedly to those Is-it-really-3am? nights, where I find myself sitting still in front of LP after LP. Or open-reel-tape after open-reel-tape. If this suggests I have been negligent in my listening habits, and am now repentant, let me explain.

Like all of you, I live in a world that renders us time-poor. While many audiophiles avoid any non-musical distractions, and may listen with total focus eight or more hours a day (or night), I also enjoy reading, watching films, cooking and dealing with my 'other life', writing in a completely separate field.

As a hi-fi scribe, I do have 'enforced' listening periods, but all of you know that

'Every room has an ideal-sized speaker, and vice versa'

playing your system for pleasure requires a completely different mindset than when you're assessing a new component. That said, even without changing my routine, I have a small system on at all times while writing, and I am lucky that the factory-fit in-car player in my aged Honda is pretty good.

GAME CHANGER

I calculate that I listen to at least 20-30 LPs, CDs or tapes every week. What has changed is a return to the intensity exhibited by those who do not have a professional agenda, and who can listen just for the sheer joy of it. First on the list of game changers for me is the Wilson Yvette loudspeaker [HFN Feb '17].

Regular readers know that I have tried to maintain constancy in my reference system, and have – literally for decades – used Audio Research electronics, Wilson Audio loudspeakers, Transparent cables, SME turntables, the Marantz CD12/DA12 CD player and other stalwarts, updating as I can afford to,

or borrowing kit with complete transparency.

With the Yvette, Daryl Wilson has ascended to the top rank of speaker designers. He learned from a master: his father was the most fastidious human being I have ever known. The Yvette taught me a lesson, or rather, it reminded me that every room has an ideal-sized speaker, and vice versa. This is the antithesis of the behaviour

of those hard-core horn fanatics in the Far East, who shoehorn gigantic enclosures into 10x12ft rooms. Or smaller.

As much as I love the Alexias, the Yvettes deliver a more appropriate level of bass for the room, while the upper frequencies have now moved a few degrees across the Venn diagram from 'analytical' to 'sweet' – an observation that has been repeated again and again from visitors, including those who own Wilsons and those who deplore them. When one of the latter sits transfixed in front of a speaker he would never have countenanced, well, that says more about Daryl's artistry than anything I can utter.

ADDED VALUE

Next up is EAT's Jo No. 5, a moving-coil cartridge we will be reviewing in an upcoming issue. At £999, it is still expensive by any measure, but what designer Jozefina Lichtenegger has done for MCs is what I have been screaming about for decades regarding the high end *per se*. She has instilled 'added value', by recognising that a frisson of lavishness and exquisite presentation go a long way to enhancing the owner experience.

She also looked to the fashion and jewellery worlds and even Apple, the latter knowing a thing or two about packaging and how it involves the customer in an event not unlike unwrapping birthday presents. Jozefina's gorgeous, egg-shaped cartridge, in an impossible-to-miss shade of green, can be purchased in a standard cardboard box, or – for a small, extra fee – in a magnificent wooden box that will certainly find pride-of-place on permanent display near your turntable.

Lastly, there's my rediscovery of open-reel tape, for which I am indebted to Tim de Paravicini and his show demonstrations. I have had at least a dozen audiophiles visit and all agree, hands down, that the sound is so far beyond the best of vinyl or digital that a hint of sadness ensues.

How so? We all agree it's a shame that such bliss comes from a costly, fragile, complicated format. But then, there's one of life's truths to remember: the harder you work for something, the more you appreciate it. Happy New Year! ☺

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